

THE
SOUTHERN AGRICULTURIST.

JUNE, 1839.

PART I.

EDITORIAL AND ORIGINAL.

Agricultural Convention.

*Mr. Editor,—*Union, it has always been said, is true strength ; the fable of the faggot has constantly been verified in the every day transactions of the world. Never has there been project so desperate, provided there was any possibility of completion, but that a steady direction of united energy has or could have accomplished it. In all the vast improvements of the age, joint influence and power has been the magic mover. Canals have stretched their liquid highways over all impediments, climbing by a succession of steps, over the rugged hill-side, spanning in broad and graceful arches, the rapid river, or gliding calmly deep beneath the level of the surrounding country.

Since the first application of the motive power of steam to machinery, view the product of united enterprise. Factories dot the surface of the country, and every where among the green hill-sides and quiet valleys of England rises the smoky column, which is the banner of successful industry ; the clash of machinery which is her voice, and the thousand cottages, homes of a laboring population, who are her offspring.

Under the influence of this spirit, where is the port to which our packets do not ply, what retreat of profitable commerce unexplored ?

Already are time and distance half annihilated between this country and Europe by the introduction of steam ships, and throughout the interior of our country run the multitude of rail-roads which would almost appear our

national characteristic. They are the veins and arteries of the land, pouring in constantly a rich and healthful tide, and bearing away the produce which is to be the source of its life and energy.

And is the power of united enterprise confined merely to the avocations of commerce? Does the agriculturist need no communion with those, who, like himself, are most interested in the tillage of the soil? Are there not many topics connected with his mode of life on which a free interchange of thought and opinion, with those whose opportunities of observation may have been more varied, might be useful? Every man who is not utterly wedded to his own opinion, who is not his own self-constituted oracle, must agree that there are. Every one must see, at a glance, the utility of such re-unions of the talent, skill, and experience devoted to such pursuits. In this point of view, an Agricultural Convention is demanded by the interests, indeed, almost by the necessities of the planters throughout the State. The subjects which will there receive discussion are most momentous, involving, as they do, the increased and continued prosperity of the whole planting interest. Methods may and should therein be brought forward and submitted to consideration, for improving the system of culture of our great staples, for expediting their transportation to market, from such regions as are farther removed from our great mart, for opening new channels of communication to such ports as have hitherto lain out of the track entirely, for introducing any new and approved variety of either cotton, rice, or any other product of our soil, for recommending to trial any new staple which may bid fair to be profitable, and which has been successfully cultivated in regions of similar climate, for the encouragement of a direct trade which may increase the amount of capital, and consequently benefit the interests of the whole, and, in fact, for many other purposes which will suggest themselves to the minds of every reflecting person.

Nor in the advancement of *planting*, properly so called, should the interests of husbandry be forgotten. No planter should look upon these as unworthy his attention, nor should he permit his mind to be so engrossed by the larger and more wholesale concerns, as to pass unnoticed, this humbler, but most important branch.

The rearing of cattle, of the choicest and most improved breed, either derived from foreign sources, or by care and attention, advanced to a state of comparative perfection from our native breeds; the preparation and use of manure, the devotion of a part of the land to such crops as may sustain those animals which are to furnish the manure; all these, though auxiliary to the primary object of the Southern planter, are requisite to his thorough success. I call no plantation perfect that has not the means of continuing itself in a state of productiveness, that does not combine the comforts and lesser conveniences of the smaller farms of the Middle States, with the heavy regular crops of the South.

These things can be done, and with facility, and yet view the state of our plantations in general.

What is the condition of the stock upon them? Look at the rusty sides and bony hips of the out stock, left to pick a wretched and precarious subsistence throughout the winter, half wild and wholly useless. Contrast these in their numbers and poverty with the few and choice animals which are to be seen around the homestead of a farmer of Pennsylvania or Kentucky; yielding invariably a larger and more certain profit than any other branch of their husbandry. In the same manner, contrast the crops of corn made even upon our best lands with those which encumber the fields of New-York with wealth. All these things it is the province of a Convention to consider and arrange.

I would suggest also, the propriety of holding the Convention during the first week of the meeting of the Legislature, so that the body of facts collected by them, the deductions which they may draw from these facts, the recommendations which they may bestow upon such subjects as seem to them deserving of approbation, may all be laid before the collected wisdom of the State, and such action had upon them as may seem advisable for the better promotion of the general interests and welfare.

It is needless to enlarge upon the benefits which must accrue from such a course as has been pointed out. The views of men of experience and judgment upon all agricultural points would thus become widely disseminated, improvements adopted in one part of the State would receive the notice of the others; success in planting would be traced to the employment of proper methods, which

could generally be pursued. Information is, at all times, valuable, even upon general subjects, and by this means a full light would be thrown upon those subjects, of all the most interesting to a planter, as involving the future success of himself, the welfare and prosperity of his children, and his country.

A.

Proceedings of the Monticello Planters' Society, and appointments of Delegates to the Agricultural Convention.

Mr. Editor,—In conformity to the fourth section of the first article of the Constitution, a special meeting of the Monticello Planters' Society was called, which convened at Monticello on the 4th of May last.

In the absence of the President, James Alston, sen'r., the Vice-President, called the meeting to order, but observing that in consequence of extreme ill health he was fearful of physical inability to discharge the duties of his station, he would therefore request the Association to depute some member of the body to assist him on this occasion in presiding over their deliberations; whereupon Dr. James B. Davis was so appointed. The minutes of the two last meetings having been read, and there being no admission of new members into the Society, the Secretary took the opportunity to submit a letter for the consideration and action of his fellow-members, which had been addressed him officially by the Secretary of the Pee Dee Agricultural Society—though it should have been directed to the Corresponding Secretary, who is required to "have in charge all letters addressed to the Society." The object of the communication being to solicit the co-operation of the Monticello Planters' Society in the appointment of delegates to attend an Agricultural Convention, to be held at Columbia in December next, the following resolutions were accordingly introduced:

1. *Resolved*, That being an association of planters, organized with the view of promoting the great interests of agriculture, we should use all fair and honorable means to attain so desirable an object; and the suggestion therefore of the Pee Dee Agricultural Society recommending a Convention of planters, from all parts of the State, to assemble at Columbia in December next, meets our warm approval and hearty co-operation.

2. *Resolved*, That our continued effort to procure State legislation, in favor of agriculture, having proved unsuccessful, we yet expect such final legislative action as will contribute to the honor and well being of every class of our fellow-citizens; and to accomplish this purpose, much might be done by aid of Conventions, where public opinion would be concentrated and properly directed.

3. *Resolved*, That the Committee constituted in March last, to re-petition the Legislature, and for other purposes, be and are hereby appointed delegates to represent this Society in said Convention, and that they be empowered to do all such acts in improving and energizing every branch of husbandry as in their judgment may be necessary and proper.

The mover of these resolutions had no doubt all would admit that the objects they contemplated were every day and every hour becoming more important; that whilst other States of the Confederacy held up before us the beneficial effects characterizing their unanimity and exertion, whether as individuals or legislators, the supineness evinced by this State, and its utter indifference towards all experience and observation, presented a contrast humiliating in the highest degree to the pride of every true and patriotic citizen; and that a cursory review of the past history of South-Carolina, affording, as it does, the degrading testimonial that little or nothing had been done to assist agriculture by State legislation, should teach us an instructive lesson, for the time had now arrived when agriculturists should unite and adopt a definite system of action to advance their own interests and the interests of the community generally.

On motion of William J. Alston, Esq., the third resolution was amended, so as to authorize the President to nominate a sub-committee, who will suggest to this meeting the names of seven other delegates to be appointed in addition to those embraced in that resolution. The vote being taken on the resolutions, as amended, they were *unanimously* adopted; and Chancellor Harper, Wm. J. Alston, Jno. H. Means, Wm. K. Davis, Geo. Lightner, Burrel B. Cook, Thomas Lyles, jr., Rev. Wm. Holmes, John M. Robertson, and David Elkins, were appointed the delegates to represent this Society in said Convention.

The following resolution was then introduced; and on motion, adopted by the Society.

Resolved, That the delegates of this association to the Convention, to be held at Columbia in December next, be required in the mean time to accumulate all the facts relative to the growing crops of the district, and such other agricultural statistics as may be connected therewith; and that the Secretary be directed to urge the same on the delegates of other districts to be represented in said Convention.

The Society now proceeded to consider private business, for the transaction of which its members had more particularly assembled, and having acted upon it, on motion, adjourned.

JAMES ALSTON, *President pro. tem.*
B. F. DAVIS, *Rec. Sec'y.*

The Physiological Differences between the European (or White Man) and the Negro.

Mr. Editor,—The negro race being so closely connected with agricultural pursuits in the Southern States, I think the following remarks may be applicable to your Journal, and I hope interesting to its readers. When viewing the different varieties of men dispersed over the vast extent of the globe, we are naturally led to investigate the subject which presents to us so much interest, and inquire what are the characteristic distinctions of these varieties, and what the causes which have produced them? If time would allow, I would investigate the subject at large, but as it is one which requires more than I can at present bestow on it to do justice to its merits, I must confine myself within the limits of making a few remarks on the two principal varieties. The European or Caucasian, and the Negro or Ethiopean, which come more immediately under our own observation, in pursuing this investigation, some distinction must be allowed between the native Africans and the American negro, as the latter has undergone many modifications in comparison with their parental stock. Few native Africans are now to be found in this country in consequence of the abolition of the slave trade. For the purpose of arrangement, I will divide the subject under four heads:—1st.

The anatomical differences. 2d. The difference of moral and intellectual qualities and external senses. 3d. Difference as regards disease, and 4th. The cause of their differences. The Caucasian variety is so called from their original locality, being about the group of mountains situated between the Caspian and Black Seas on the borders of Europe, from whence they are scattered to all parts of the earth. This race has been said to be the handsomest people in the world. The best description of them is given by Lawrence, in his *Lectures on the Natural History of Man*. The skull, says he, presents the finest intellectual organization, proportions indicating the greatest predominance of rational faculties over the instruments of sense, and of the common animal wants. The upper and front parts of the skull are more developed than in any other variety, and their ample swell completely hides the face. When we survey the head anteriorly, the facial line is nearly vertical, and facial angle, nearly a right angle. The face is comparatively small, and its outlines rounded, without any thing harsh or unpleasantly prominent. The cheek bones are small and do not stand out, but descend in nearly a straight line from the external angular process of the frontal bone.* The alveolar margin of the jaw is rounded, the front teeth are perpendicular in both, the chin is full and prominent. This is a well drawn description of the skull of the European, by this author. The form of the head and face has always been the characteristic distinction of nations. We must take this race as our guide and standard in making our comparisons—for this description is well suited to the Americans, who have undergone few changes in their anatomical structure. Camper's description of the European is very similar to the one I have just given, as the negro presents many peculiarities of conformation, which draws the marked line of distinction between his race and that European. I propose in the remarks to compare the one with the other, as regards each anatomical difference. Let us then commence by examining the anatomy of the head of the negro, and see in comparison with the head of the European, where lies the principal difference? The first and most prominent circumstance which strikes

* The bone forming the forehead.

us at first sight is, that we do not see the fine ample forehead as in the European, which is caused by the frontal bone being shorter, and the parietal* bones less excavated, and smaller in the negro. In the native Africans, the head is somewhat of an oblong shape, and compressed in front, but this is much modified in the American negro, although we sometimes meet with a head of this conformation. The temporal ridge is higher, and the temporal muscles are very large and powerful, the bones employed in mastication, are very strong and large; the bones forming the walls of the cranium are very thick, which I think may be owing, in some measure, to their carrying most of their burthens on their heads, for I have observed that on the top of the head where the parietal bones join, the thickness is much greater than in any other part of the head; every one has observed the great projection of the cheek bones, and the great capacity of the orbits of the eyes. The mouth is generally very large, and the teeth are oblique, the lips are large and thick. One of the greatest characteristics of the face of the negro is, the ossa nazi,† which is very much flattened and short. Dr. Samuel Smith, a former professor of Princeton College, in an essay which he wrote on the causes of the variety of complexion and figure in the human species, ascribes all their differences to climate and society. In the State of New-Jersey, says he, where the hardships of slavery are not felt, we see great numbers of negroes who have the nose as much raised from the face, the forehead as much arched, and the teeth as perpendicular set in their head as the whites. Many negroes (continues he) I have seen in Princeton, with noses turned, with a handsome aquiline curve. I cannot agree with the Doctor, that slavery tends, in any measure to depress the nose of the negro. I resided at the North for some time, and whilst there, I observed accurately the negro race, and found them the same, with their noses as flat as ever I have seen negroes here. The anatomy of the trunk presents some difference in the negro, it is much more slender, particularly about the loins. There are also anatomical differences in the extremities, which, in many cases, are very perceptible. The fore-arm in the negro is longer than in the European's.

* The bones at the side of the head.

† The bone of the nose.

White, in his work on the Gradation of Man, has paid much attention to this subject. I measured, says he, the arms of about fifty negroes, men, women, and children, born in different climates, and found the fore-arm longer than in the European, in proportion to the arm and the height of the body. The first on the list, is one in the Lunatic Hospital, in Liverpool, his fore-arm measured $12\frac{3}{12}$ inches, and his height was only 5 feet $10\frac{1}{2}$ inches. I have measured, continues he, the arms of a great many Europeans from that height up to 6 feet $4\frac{1}{2}$ inches—and among them one who was said to have the longest arm of any man in England. But none of them had a fore-arm equal to the black lunatic. I have also measured the arms of a great many European skeletons, and have found the os humeri exceed the ulner* in length by two or three inches. In the negro skeletons, the os humeri is only $1\frac{1}{2}$ inches longer than the ulner. There is an unnatural appearance about the legs of the negro, the bones are bent outwards, and the calf of the leg is nearly up to the popletal region. The os calcis has little or no arch, but continues nearly in a straight line with the other bones of the foot.

We come now to treat of what has been considered the great leading difference between these two races of men, when viewing the great varieties of colour in the human face, from the jet black African to the fair Europeans. We are almost tempted to believe that there must have been more Adams' than one, each variety of colour having its own original parent. The skin is composed of a cuticle, the rete mucosum and the cutis vera. The rete mucosum of the alpight is acknowledged by most authors to be the seat of colour in the negro. It is a delicate structure interposed between the two layers of the skin; it has no fibrous structure, but is of a mucilaginous consistence, difficult to separate—it may be done by putrefaction, but it generally adheres to the article, and diffuses a colour to water. Its existence in the European has been denied by some authors, but it has been demonstrated by some able anatomists, a specimen of this kind is said to be in the Hunterian Museum, the difficulty in detecting the rete mucosum in the European, which has

* One of the bones of the fore-arm.

† Bone of the head.

caused doubts of its existence, depends upon the extreme delicacy of the skin in that class of people, but freckles and other discolourations of the skin will fully prove its existence. It is wanting in the albino. I have discovered it several times in the European, says Dr. Harlan, by raising the epidermis with a blister, more especially upon the back of the neck and hand, which fact has been fully corroborated by similar experiments. We often see different parts of the body of the Negro changed to a white colour—which phenomena is generally attributed to an extensive cicatrix produced by a burn, or the marks left by small-pox, causing the destruction of the rete mucosum, which is seldom regenerated. The writer just quoted, remarks, that from some observations he made, a few years ago upon a portion of skin taken from a pie-bald Negro who died in the city of Philadelphia; he was convinced that in all such cases, the metamorphosis from black to white is dependant upon a total absorption of the rete mucosum, and a destruction of the glandular system which originally secreted it. The cutis vera also in this is far less vascular, which occasions the dead white colour displayed through the translucent epidemic. We will proceed to speak next of the causes of these differences of colour, which has been the chief subject of discussion in the important modification of the human family.

The first I shall notice is, climate, which has been strenuously advocated by Smith and Blumenback. The former, speaking of the rete mucosum, says, this membrane is the proper seat of colour, being filled with a delicate mucous or viscid liquor, which easily receives the tinge of the blood, when strongly propelled by any cause to the surface, or the duller stain of the bile, when it enters in any undue quantity into the circulation. The smallest surcharge of this secretion imparts to it a yellow appearance, which, by remaining long in contact with the atmosphere, assumes a darker hue, and if exposed at the same time to the inordinate influence of the sun, approaches according to the heat of the climate, and the degree in which the bile prevails towards a black colour. Blumenback's ideas on the subject are purely chemical. The proximate cause of the dark colour in the external integuments of the skin says he, is to be sought in the carbon which abounds in the human body, and abounds more in the oil and bile than in any other animal substan-

ces. The latter coming united with the hydrogen, with which it is intimately connected to the surface of the body. The hydrogen then attaches itself more quickly to the oxygen of the atmosphere, on account of their superior mutual attraction, and flying off; first, the carbon is precipitated in the rete mucosum, and infects it with its dark colour in proportion to the quantity which various causes have thrown into the circulation, chief of which is climate, notwithstanding the high authority from which this last opinion emanates, I must be allowed to differ. It is an hypothesis, which amounts in substance to ascribing to the Negro tribe an everlasting jaundice, it would appear as if the author had seen the whole process going on, as we witness experiments in a laboratory. I do not pretend to say that solar heat has no influence on the complexion of Europeans, and other races of men, but I assert it is not the exclusive cause of colour, which I hope I will be able to prove. My opinion is, that the colouring matter is a glandular secretion, imparting also colour to the hair. In this way we can account for the colour of the hair in different complexions, a swarthy person having dark hair, a very fair person having light hair and eyes. Albinos have white hair and light eyes. Smith takes this as one of his principal arguments,—namely, that the blackest negro, when first born, does not exhibit his true complexion until after he has been exposed for sometime to the contact of the external air, but this phenomena can be accounted for without the aid of climate. It will take place in a cold as well as warm climate. All the secreting functions in the new born infant are languid until respiration is well established. The atmospheric air acts as a stimulus to their organs. Do we not observe the same circumstance taking place in that important organ, the liver, which, in the foetus affords no bile, of the kidneys which form no urine, of the exhalents, which throws out no perspiration? This, then, will tend to explain the reason why colour is not fully established directly after birth—a few reasons will be sufficient to prove that climate is not the sole cause of the varieties of colour. Inhabitants of the same country and climate often presents different and distinct features and varieties of colour; for instance, in America, the Indian and the Negro, both exposed to the same climate, and although the former is much more exposed to the

influence of the climate, he presents perfectly different functions and colour. I have seen negroes in this climate and at the North, as black as Africans just arrived from their native shore. The most conclusive proof that climate is not the cause of colour is, that many parts of the body of the negro, not exposed to the influence of the climate, are found to be much blacker than other parts of the body, which are always exposed—for instance, under the arm and the inner parts of the thighs. The colour of the skin of the negro gives him a great advantage over the European's, by enabling him to endure the heat of the sun with less suffering. The experiments of Hunter have clearly proved the resistance of the black colour to the radiant heat of the sun's rays, whilst the white skin would soon become sensibly affected. I exposed, says he, the backs of two hands to the sun's rays, with a thermometer upon each, the one hand was uncovered, the other had a covering of black cloth, under which the ball of the thermometer was placed. After ten minutes, the heat of each thermometer was marked, and the appearance of the skin examined; the thermometer under the cloth was 91° , the other 85° ; the exposed skin was scorched, the other had not suffered in the slightest degree. The second experiment, the thermometer in the sun, at 11 o'clock, at 90° , the concentrated rays was applied to a piece of black cloth made tight around my arm for twelve minutes, which gave no pain, and left no impression on the skin, although the nap of the cloth had been destroyed. This experiment was repeated with white cloth, and in fifteen minutes a blister was formed. The next experiment which was tried, was the following:—The sun's heat at 85° , the concentrated rays applied to the back of the hand of a negro for fifteen minutes, produced no visible effect. Thus it is clearly proved, by the experiments of Hunter, that the black skin, when exposed to the heat of the sun's rays, suffers less from its scorching influence than the white, and it is accounted for by Sir Humphrey Davy, on this most probable and natural principle, that the radiant heat in the sun's rays was absorbed by the black surface, and converted into sensible heat. Let us examine some of the apparent causes of colour, the most important of which is the blood of the parents, the true, and I think, the fundamental cause of colour; although writers on this sub-

ject have almost entirely overlooked it. The taint of the African offspring will be entirely eradicated by the mixture of European blood from one or two generations, which never would have taken place under any other circumstances, but they would have preserved all of their national peculiarities from one generation to another, without the slightest change. Passions and emotions of the mind, especially fear, has been said, in some instances, to have operated on the system so as to change the colour of the hair and skin in a few hours. In Cox's Medical Museum, the following wonderful case is recorded:—A woman in Philadelphia had the colour of her hair completely changed in one night, her case was that of a difficult parturition—her anxiety of mind was very great. Cases are also on record where negroes have become gradually white without any apparent cause.

We come next to treat of the differences of moral and intellectual qualities. The difference of colour of the European and Negro does not draw a wider characteristic difference between them than does the pre-eminence of the former in moral feelings and intellectual endowments. Let us examine the state of moral feelings in the negro race. Some authors have spoken of the negroes as being an unfeeling and a barbarian race, practising the most unheard of cruelties towards their wives and children, and of their total want of natural affections. I think this description not at all characteristic of the African tribe—even in the savage state. We are enabled to draw a more pleasing picture of them, and not so darkened by all the worst of vices and crimes. Laziness is one of the great characteristics of the negro—as a race, it has been said, that is caused by slavery, but this is not the case, for we find in the Northern States of our country, where slavery does not exist, that this characteristic is the same. The negroes there enjoy all the privileges and immunities in common with the whites, and yet they are noted for their laziness. The alms houses are all crowded with them; the fear of starvation is their only incentive to labour, and their only provision is, for the present time. True bravery, love of liberty, ambition, and all the higher feelings to which the soul of man is heir to, belongs to the white man. His superiority is not owing, as is generally thought, to accidental causes, nor is it attributed to cultivation alone, but it is innate,

implanted in him by the God of nature. That it is not owing to external causes, such as climate, is proved by the fact, that negroes being in the same climate, and enjoying all the privileges with white men, have never, as a race, exhibited the higher feelings of the soul to a degree corresponding with the Europeans. I think with Lawrence, who, in his Lectures on Man, says—that the human mind is not to be measured by a scale of the thermometer. White nations may degenerate, but the qualities which distinguish them, in their proudest state, will still exist. A negro, by being brought up among Europeans, may be much improved, but there will still remain a wide line of distinction between them, which is seldom crossed by the negro, and if it should be, it is recorded as a wonder. Authors have attempted to prove that civilization, government and education are the causes of their great distinction, but I am far from believing, that enjoying the same advantages, they would attain to the same eminence. We look deeper, says Lawrence, for the causes, and seek for them in some circumstance, inseparably interwoven in the original constitution of man. I refer to the variety of moral feelings, and of capacity for knowledge and reflection to those diversities of cerebral organization which are indicated by, and correspond to, the differences of the skull. There must have been a time when the European was as uneducated as the negro. Why, therefore, should the former excel in intellect? Wherever these two races are found together, the European is noticed for his superiority in intellectual acquirements over the African. It is as improbable, under any circumstance, that these two races of men can be made equal in moral and intellectual attainments, as to believe that by education, the bull-dog may equal the greyhound in speed, or the mastiff rival the sagacious poodle. Negroes, in general, exhibit a great acuteness of the external senses; their sense of hearing is very acute. They have an extremely fine air for music, and many excel in this accomplishment. It is said they can see at almost an incredible distance. These, then, forms the most prominent anatomical and phrenological differences between the Europeans and Negroes. In our next number, we will consider the differences as regards disease, which constitutes many important parts of the subject.

Your's, &c.

W. G. RAMSAY.

On Pea Vines as Provender.

Mr. Editor,—I have observed in some of the last numbers of the *Agriculturist*, several sensible articles recommending the planting of Indian corn as an assistant to the provender crop.

This is an important subject to the planter. I never could raise enough fodder upon the land that has amply supplied me with grain. The results of the experiments given by the writer from Savannah, by "Abbeville," and the note to the last article, show that the plan has been successful in different parts of the Southern country, and has amply re-paid by the large return, the amount of labor bestowed on the cultivation. I know nothing of the plan myself—I had thought that in our climate, corn planted as thick as mentioned in the articles referred to, would *fire* at a short distance from the ground—be dry and sapless. But the experiment seemed to have been fairly tried, and have fully succeeded. I know nothing, as I have said, of corn stalks as provender, but I do know from several years' trial, that *pea vines* are not only easily cultivated, but produce most abundantly, and are the most nutritious provender I have ever used. Since I have been planting I have always eked out my fodder, oats and shocks, (and of these last, I would say in passing, that large quantities are improvidently wasted on most of the plantations in this country) by pea vines. *They are easily cultivated.* I usually plant them by themselves, about the 10th of July, in checks (three furrows crossed) $2\frac{1}{2}$ to 3 feet apart, about 18 or 20 grains in the hill. One ploughing, after they are planted, and one working with the hoe, make them. They should be cut up before the pod begins to ripen, or the leaves to fall, and in ten or twelve days they will be cured sufficiently for putting away. *They produce very abundantly* I made from a small piece of ground in 1834, of only $2\frac{1}{4}$ acres in extent, 5 large stacks of about 1,500 or 1,800 lbs. in each, more than 3,000 lbs. to the acre. The land had been previously planted in oats, and not manured, but was productive land, and has since yielded from 15 to 20 bushels of corn to the acre. I have planted pea vines every year since, and much more largely, and they have yielded very abundantly, but I have not attended so closely to

the results. *They are highly nutritious.* I have always observed that my work-horses improve very much soon after I begin to use them, and in winter, unless at hard work, I use very little grain when feeding upon them. They should be cut up in a cutting box, and more salt used at first than with their ordinary food.

“COTTON.”

Letter on the importance of Agricultural Schools, and Agricultural Conventions; with remarks by the EDITOR.

Spartanburg, May 13, 1839.

Mr. Editor,—As one of your constant readers, I beg leave to express my gratification at the movements you are making through your journal, to forward the cause of agricultural education, so important to the interests of our State, and the good of our common country. As a Southern man, I feel mortified at the little progress that is making in our section of the Union, in the science of agriculture. So little are its principles understood in my immediate neighborhood, that one would suppose we did not calculate to occupy our land for more than 8 or 10 years at most, and that it was intended our children should embark in some other business, or seek a new country; so wasteful and destructive is the system, we, for the most part, pursue. With us, the best farmer is he who clears the most land every year, and plants (I will not say *cultivates*) most ground, so slovenly is the tillage. The only rotation we recognize is corn and wheat, until the soil is so much reduced as to be no longer worth sowing in wheat, and then follow corn and oats, until the broom sedge and sassafras occupy the little soil that has not been carried off in the gullies. To talk to us of an improved system, I would compare to kicking against a bag of cotton; we yield a little, for we have nothing to *say* against it, but the next winter and spring we are again found with the axe in our hands, felling and burning up the large forest trees, (which were certainly given us for a better use) instead of being employed in feeding our stock of all kinds, and thus securing the means of fertilizing our open land. Spartanburg, though in general an unproductive district, has advanta-

ges within herself, which (if her citizens would follow the advice so often given in your periodical) would place her among the first districts in wealth, as she is one of the largest in surface and population in the State. "Tis true we have not as rich a soil as many of the other districts, but then we have one that amply repays us for any labor we judiciously expend upon it. There is, for the most part, a subsoil of clay, which is eminently retentive of any fertilizing matter turned in it. Again, what country in the world is blessed with a finer air or purer water than our three mountain districts of Spartanburg, Greenville and Pendleton. But on these subjects I could talk a great deal, and would weary you. Let us then return to the subject of Agricultural Education.

Next to legislative aid, which might sooner bring about a reform, I know of no plan so likely to be useful as the introduction into our primary schools of elementary books on husbandry. As I said before, the establishment of Pattern Farms may a little sooner change the face of things, (but as this is not to be hoped for from a Legislature composed as ours *now* is) nothing can do so much good as addressing ourselves to the rising generation, and training up our children to be farmers. I began about three years ago to carry on a small farm, under an impression that it was an easy business, but I should be sorry to tax you with reading a record of the numerous mistakes I have made: suffice it to say, I think I have learned a little in the school of experience, and if I continue to be blessed with health and strength, I hope to show before long, that your advice has not been entirely thrown away upon one farmer. In the mean time, allow me to congratulate you upon the new and important movement you are making to advance the cause of agriculture, and to subscribe myself,

Your humble servant.

We are happy to learn from the above communication, that the cause of agriculture is beginning to find its advocates in the mountain districts. To succeed as an agricultural people, all we want is, that inquiry be awakened amongst us. Every farmer and planter possesses some information, which his neighbor does not; and it is by a reciprocal interchange of this information, that in agri-

culture, as in every other science, we are to become improved. If we will confine ourselves within the limits of our own plantations, and never look for information beyond them, in vain will we hope to derive any thing like profit from the soil. Marking our failures at home, we must look abroad for information and aid—we must learn what others are doing—test the causes of their failure or success, and appropriate the lesson to ourselves. Nothing has a greater tendency to effect this, than the establishment of Agricultural Societies among the people. By them farmers are brought together to interchange their sentiments and experience—they are made acquainted with each other—friendly relations are formed, and a spirit of honorable rivalry is raised—and not unfrequently vast and important advantages result to the agricultural condition of the whole community. As much as may be done by agricultural school books, our correspondent mistakes us, if he supposes that more may not be done by parents. They must theniselves become interested—they must become enlightened. If they would have their children devout worshippers, they must take them to the altar, and offer up the sacrifice, and teach them by their own example, that not to have their incense rejected, they must have a strong and abiding faith in the excellency of its offering. Let our children see us actively and zealously engaged in our profession—let them see us following it as a calling not to be ashamed of, and the example must and will impart itself in a wholesome manner. But as we have already hinted, we must begin with ourselves—and what better opportunity presents itself than the Agricultural Convention, to be held this year at Columbia. There we will have a concentration of mind upon all the subjects connected with agriculture. Our respective information and wants may be exchanged with each other—and such measures may be devised, as will effectually bring forth the united co-operation of all the citizens of our State. By such a meeting, our minds will be awakened to the importance of the subject—we will go home with more enlarged views and higher hopes—and though the seed sown be never so small, we have the example of other States to warrant us in saying, it will spring up and yield an hundred fold.

Advantages to Charleston, and South-Carolina, to be derived from a Direct Trade; with reflections on the Rail-Road and Canal Communications of the South.

[CONTINUED.]

It will be remembered, that in our last number of the *Agriculturist*, after describing the works which are either commenced or being commenced in the South, we introduced an argument upon the practicability of concentrating at Charleston, a greater portion of the cotton produced in the Southern country—and even contended that this was the only ground upon which a successful demonstration could be made upon direct trade. The parties who appeared were, a merchant in the cotton trade, and an engineer engaged in connecting the Atlantic with the Gulf of Mexico. The engineer having renewed his promise to furnish a full report on the trade of the Gulf, with a map in detail of our Southern works—the merchant observed—

Mr. Engineer, there is some doubt upon my mind as to the interests which Great-Britain would take in our diversion of *trade* and *fiscal power* from New-York to the South. I fully agree in the principle which we established in our last communication on the “line of reciprocal indebtedness,” but this will not of itself produce a sufficient inducement. I will also give full weight to the direct control which a concentration of one million of bales of cotton would produce, requiring as it must, a tonnage of seventy large ships per month to freight it, and correcting, in a great measure, the present undue speculation in this important staple. But there is something wanting still. Can we exert at once, such a vast money power as would enable us to wield this trade?

My dear Sir, could there be selected a more opportune crisis for the establishment of this power? When Bristol controlled the cotton trade of Great-Britain, it was thought futile to attempt to divert it—and those who persisted were met with ridicule; but the mouth of the Mersey lay within thirty miles of the WORKERS of *cotton*, and the annual *productive power* of little Manchester was relied upon against the immense *credit power* of the manmoth London. In a few years, Bristol was almost forgotten as a cotton market, and Liverpool controled the busi-

ness. Now, Sir, look at the parallel case of the **GROWERS** of *cotton*. They produce annually fifty millions of dollars worth of *latent* capital in the production of their million of bales. Let us make this capital *active*. Let a joint Southern bank be created, which shall wield a capital of fifty millions, and there can be no doubt as to the money lever. This is our position at home.

Now let us turn to Europe, and see how much more interest she must necessarily take in our wielding it—than having it wielded for us by New-York. What is the chief source of the wealth of Great-Britain? *Manufacture*. Who does she supply? The world. There is no limit then to her productive power, so long as she monopolizes manufacture. It becomes, therefore, her interest to restrain all other nations from competition in this branch of industry—and where does she find greater rivalry than in the manufacturing towns which are now springing up, through the overgrown wealth of New-York? Is it then rational to suppose that Great-Britain would throw upon that place all the supplies furnished by her for the North American market, could she prevent it? Certainly not. She will divert them as soon as possible. All the interests of that island are connected with the agricultural prosperity of our section of the Union, and directly opposed to the manufacturing industry of the North. Our great staple production is the very basis of her wealth, and stimulate the malaria districts as she may with her prodigious money power, she only improves the more the agricultural source from whence she derives her profits.

On these broad abstract principles, it is perfectly clear that the South has the power, would she exert it, to be fiscally independent—and Great-Britain is as deeply interested in the exercise of that power as we are. What then can prevent the actual consummation of this object?

Mr. Engineer, the practice—the financial energy to put such an engine in motion. We have adequate mercantile skill, and our bank directors are fully equal to their present spheres of action; but when you charge upon them the business of a Prince, Ward & Company, or tell them of the comprehensive grasp of a Biddle, you at once excite that skepticism, which magnifies the power of New-York to so alarming an extent as to render all effort on our part insufficient, or even chimerical.

I acknowledge this, Mr. Merchant, to a certain extent, but have we not the example of New-York before us? And can we not use her experience to foster our efforts in their infancy? It is certainly not too late to declare our commercial independence, nor can it be true that only one commercial emporium can exist in the same realm, at the same time. If it were so, it would be better that the South should be politically severed from the North. But there is no foundation in experience for this opinion. The examples of London and Paris do not apply—the appendages of regal government have occasioned the undue size of these places. The sovereign jealousies of our sovereign States preclude the possibility of such a concentration in America. Look to the fiscal history of the country—the fall of the United States Bank. So must we argue of the commercial history. This is the ground of our move on Charleston—to wrest, through her, from the grasp of New-York, the commerce of the Union.

I must acknowledge that the present practice of the commercial world is against us—every thing is auctioned at New-York, and it is for this reason that I would have Charleston, in her attempt upon direct trade, to take such bold ground as to excite confidence, not only in the minds of the American people, but of all Europe, and I again ask, can there be a fitter opportunity. New-York has now received a blow which will make foreign nations careful as to the principle upon which she professes to monopolize the trade of North America. They find that where money power is allowed to expand beyond a certain extent, it not only becomes unmanageable, but mad in its operations: overgrown capital begets a speculative disease, which knows no stop. It will only be because Europe cannot avoid it, that New-York will be continued as the only American mart.

All well, Mr. Engineer, but let us come back to the practice. Follow for an instant, as we did, in our former conversation, the commercial and fiscal traffic of a \$100, and see how difficult it is to talk of *distinct commerce* and *distinct finance* for the South. Our agents in New-York are, an Importing Merchant—a Jobber—a Southern or Western Buyer—a Banking House for European Exchange, and the city Banks, generally. The European importer, not acquainted with the country merchants, is

obliged to sell to the Jobber, whose craft is to know every body, and to play a bold game. This agent being a go-between, requires no actual capital ; he gives to the importer for his goods "*a six months note*," and turns him over to *Prince, Ward & Company*, or the *Browns*, who furnishes the importer with drafts on Europe, and with these he renews his importations. But what of our busy Jobber—does he get cash for his goods, bought at six months credit ? Far from it. Having *drummed* his Southern or Western buyer to his ware-house, he actually *sets him up* with a credit of twelve months—*provided* the country merchant pays him from the pockets of his home consumers, a profit of twenty-five cents, and an additional tariff of 9 per cent—6 for the twelve months credit, and 3 for Western Exchange, in favor of New-York—his note becoming (\$129.) And upon what ground does he do this ? *The banks* assume the notes, and employ their own agents in the South and West to collect them. The Jobber then has not only the six months credit of the banking houses, but from the banks proper, an equal amount in cash, with which he takes good care to keep actively engaged, till his payment to the banking-house is due. Now, Mr. Engineer, when will we obtain these facilities in Charleston ? When will we have such banking-houses, or banks that will give twelve months credit to a Western merchant. The Browns are supported by the Bank of England, and Prince, Ward & Company, by the Bearings.

Why, said the Engineer, I see no difficulty. If our premises be true, as to the greater interest of the manufacturers of England, in fostering the agriculture of the South, rather than to the manufactures of the North—the Bank of England, at any rate, will much prefer contributing to our aid than that of the New-York Bankers. See how much she requires such a support in her present emergencies. She sustains the present institutions of Great Britain—the Aristocrat or Tory party depends upon her. Knowing this, the Democrats or Whigs are moving slowly forward under the banner of a provincial system of banking, which may be best compared to the free banking policy of monopolizing New-York—a system, to sustain a *Commercial Republic*—the *world* being tributary to Great-Britain as fiscal provinces. Can it be that our Northern financiers place confidence in such a scheme :

do they suppose that the foresight of British politicians will fail to discover that they seek to revolutionize that country by bank agency, and then urge forward their manufacturing industry at the North, to the ultimate subjugation of that interest in G. Britain. England must see, that while her fanatics are engaged in sending their Thompsons and Martineaus to revolutionize us, the yankees of America are sending their Joudons and Biddles to revolutionize them. At this juncture, the Bank of England and whole Tory party, must look to an *independant* and *stable* currency of the cotton growing States with the utmost interest; and the sooner we turn the attention of our institutions in Charleston to a thorough understanding with the Bank of England, the better. But of the Banking Houses and Banks of N. York, with a view to exchanges on Europe and credit to the West. Was not the Bank of Charleston chartered for the former purpose, and the South-Western Bank for the latter? They are fully competent to these offices, and when once the improvements are opened to the South-West, by which the *Tennessee River and Gulf of Mexico will be united to Charleston*, they will come into full play, and the credit which they are now gaining will only establish them the sooner in the confidence of the European manufacturer, and the Western planter. But, Mr. Engineer, how is it then that these two institutions are antagonist to each other at the present moment. For the simplest reason in the world—they were established upon abstract principles, and their legitimate spheres of action are not yet opened—the consequence is, they not only prey upon each other, but interfere with the other institutions of the city—all of which were established for special purposes.

I only wish then that their spheres of distinct action were in existence, for at present bank stock exchange is the only *trade* of the city.

Aid, then, said the Engineer, in quelling that contemptible spirit of jealousy, which would insinuate that Charleston, as the great Southern emporium, must yet limit her expenditures to the confines of Carolina. To be adopted by the South, as her champion, and under the sectional banner of *distinct commerce* and *distinct finance*, she must look to all the avenues which unite her to that South, and to as liberal an extent as possible, improve them. Then will she not only concentrate the

productive labor of the South at her wharves—but wield upon it a fiscal power, equivalent to all the demands of an extensive trade.

Mr. Engineer, there is much truth in this, for had the argument any force, it would have been applicable to New-York, who has extended her investments throughout the Union. But, on the subject of currency, the South-Western Bank is but a partial agent of the South under its present organization; it is not based upon the peculiar productions of our soil—the legitimate basis of all currency. Unless this form be given to it, we might, with equal propriety, vote for a Bank of the United States. It is really farcical to hear it termed a Southern institution, when it is not supported by an export of more than two hundred thousand bales of cotton, the crop of South-Carolina—while the annual crop of the Southern States are nearly two million. Now, the annual redemption power of the South, through its cotton staple, is the basis upon which the banks of the North obtain the confidence of European capitalists. Upon this basis, they can, at any moment, repeat the process of suspension—a safety valve, furnished them by our cotton crop, to the amount of sixty millions annually. Should the South-Western Bank of Charleston become incorporated into the currency of the Southern States, it would preclude the possibility of this nefarious suspension system, at the North.

Mr. Merchant, you are now correcting the unaccountable mistake of the last Augusta Convention. Why did that body throw out the motion of Judge McDonald, of Macon? Why did they fly from a responsibility, which was the most important of all others, the construction of an independent currency for the South? *Sectional institutions* must have *sectional currencies*, and until the South awakes to this truth, we must ever feel the weight of the Union bearing heavily upon us. Our agricultural pursuits call for a fixed commercial and fiscal stimulant—otherwise the virgin soil of the West must absorb it. The manufacturing industry of the North is marching boldly upon the re-organization of a National Bank, and he is blind to the subject before us, who does not see in such an institution the unqualified vassalage of the South, or a direct appeal to the virtue of disunion.

PART II.

SELECTIONS.

Treatise on the Culture of Silk; by GIDEON B. SMITH.

(Supplemental to No. 2, published in the last number.)

[FROM THE FARMERS' REGISTER.]

After the cocoons have been properly cured, as described, either by baking or the application of heat in any other way, they should be spread out in a dry airy room, that the moisture of the chrysalis may evaporate, and should be thus kept till wanted for reeling or transportation. I have known cocoons to be ruined by the moisture of the chrysalis, when merely thrown into barrels and boxes. When intended for transportation, or to be sent to any distance, after they have been thoroughly dried, they may be put into barrels, boxes or baskets, but must not be packed so as to *indent* the cocoons. The best way is, to fill the vessel, and gently settle them down, by shaking and slight pressure. If the cocoons are indented, they are very difficult to reel, and if flattened, they cannot be reeled at all; and, of course, are worthless, except for carding. In very damp weather, the room in which the cocoons are kept, ought to have a fire made in it to dry the air, and the cocoons should be stirred up, once a day, during the continuance of such weather; as they are very apt to absorb moisture from the atmosphere.

NO. 3.

Reeling, Twisting, Bleaching, &c.

We have now arrived at the most difficult part of the whole business of silk-making, that of reeling the cocoons—without which all the previous operations will have been worthless. It is at this point that thousands of persons who have begun the culture of silk, under high hopes and expectations, have been arrested in their progress by what they called insurmountable difficulties, and abandoned the business in despair—there being, heretofore, no market for the sale of cocoons. In vain, have they been exhorted to persevere in the trial with patience and industry for a few days—in vain have they been told, that the devotion of one week's time and half a dozen pounds of cocoons, would be sufficient to teach them the art. The process seems so tedious, the result so trifling, that, after a few hours' trial, they give it up, and thus ends their career in the culture of silk. More than one thousand such instances have come under my immediate notice—

I might, I am sure, say several thousands, including all with whom I have had intercourse personally, or by letter. Among them all, not more than one in twenty, have been induced to persevere, until they learned to reel at all, and not probably one in fifty until they learned to reel well. But for the encouragement of those who wish to learn to reel, I can and do assure them, that, when any intelligent persons have persevered for one week, they have invariably become expert reelers in that time, and many of them even in less time. Any person, therefore, that will devote one week, and five or six pounds of cocoons, steadily and perseveringly to the object, will be certain of accomplishing it. It requires almost Job-like patience, but patience was never better paid for. Let this be an invariable rule with all who would learn to reel: Take five or six pounds of cocoons, and set apart one week of time, with a determination to waste all the cocoons, if necessary, and to allow of no interruption during the time, and then go a-head. If in two or three hours you find yourself making a good thread, all the better; but don't be discouraged if you presently find that thread becoming worthless from some cause or other, but take it off the reel, and begin anew. Who ever heard of a young woman learning to spin cotton, wool, or flax, even in one week's trial? Why, then, expect to perform a much nicer operation by *intuition*? Persevere, then, and you will learn. Perseverance, in a learner of reeling, is the great thing needful; and it is sure of its reward. Let me, for further encouragement, inform young beginners, that I have taught many persons to reel by writing one letter to them, describing the process. Many persons now maintain themselves by making sewing silk, who never had any other instructions than these letters.

The *reel*, most proper for the purpose, has heretofore been the one established by the Italian government, called the Piedmontese reel. Its construction is peculiar; and it secures several points deemed important in raw silk. By a peculiar vibration of a particular part, it lays the threads cross-ways in such manner as to prevent adhesion by means of the still wet gum. It reels two threads at a time, and they are so wound around each other in passing up to the bars of the reel, that they compress each other into a perfectly cylindrical wiry thread, without twisting—which is important, as the raw silk can then be used as flax, or twisted more or less to suit the various purposes for which it may be wanted. Our countrymen, however, seem to have abandoned, or rather rejected (for they have never used them much) these reels, and are using various kinds of new construction. Almost every person that has done any thing at all in making silk, has invented “a new reel”—a “new silk-reeler and twister;” a “machine to reel and twist silk at the same time,” &c. &c. I am, however, very much inclined to the opinion, that for all commercial purposes, the silk must be reeled in a manner similar to that produced by the Piedmontese reel, and that, or some reel producing the same result, must ultimately be adopted by us. All staple articles of commerce must have some fixed character as a standard, all deviations from which deteriorate its quality. Silk reeled by the newly constructed machines will do well enough, and as well as any, for sewing silk, and for other manufactures at home, and in our own looms; but in the markets of the world at large, it must be of a character and quality to meet the expectations, and to conform to the customs of the manufacturers there. Why does the raw silk of China sell in Europe so much lower than that of Piedmont? Simply because it is not reeled like the latter. I make these remarks, here, merely for the purpose

of recording my opinion on this point, fully believing that the time will come, when all other reels and machines than that of Piedmont, or those producing the same results, will be abandoned in this country, except for domestic use, for which the newly invented machines are admirably adapted. The best I have examined is Brooks'. They cost about forty dollars, and can be obtained of the inventor, Adam Brooks, South Scituate, Massachusetts. Reels of the Piedmontese construction, can be obtained in Philadelphia, but I am not in possession of the address of the person who makes them at this time. They cost \$15 to \$20.

Preparations for Reeling.—A small portable furnace, with some burning charcoal, is very useful for keeping the water hot, and should always be used. On this, place a copper or tin vessel, broad and flat, say six inches deep, eighteen inches long, and twelve inches wide. Fill the vessel with hot water, not quite boiling, and put into the water two or three dozen cocoons, from which all the loose tow has been taken. With a small wisp of broom-straw, stir the cocoons about, occasionally raising the wisp to see if the end of a fibre has attached itself to it, and if such is the case, take the fibre in the left hand, and proceed again, as before, stirring the cocoons with the wisp, and securing the fibres in the left hand, until you have got fifteen or twenty; then attach them to the bar of the reel, and let an attendant turn the reel rapidly. Watch the cocoons carefully so that you may observe if they *run* or unwind well. If you observe any of them drawn up out of the water, the water is not hot enough; if the fibres come off the cocoons in burs or clusters, the water is too hot. In the former case you must increase the heat of the water by pouring into the pan some boiling water; in the latter case you must cool it, by putting in cold water. The great difficulty, in reeling, consists in ascertaining the proper degree of heat of the water, required for different parcels of cocoons. Some cocoons require the water to be only of blood heat; and others of all degrees from blood-heat to near the boiling point. But a little experience will teach the degree of heat required, so that the reeler will know in a moment whether the water is of a proper temperature.

When you have got as many fibres running on the reel as you require, you must still sit at the pan with the wisp, catching other fibres; for if the reel is turned with the proper rapidity, it will require you to be constantly attaching new fibres to supply the place of those that have broken, or exhausted cocoons. The fibres are readily attached to the thread as it is running, by merely throwing the ends of them on the running thread, which immediately adhere by means of the gum.

The number of fibres in the thread depends upon the purpose for which the silk is intended. For sewing silk of ordinary quality, about fifty fibres may be reeled together; and then the threads will require to be doubled, so that from one hundred and fifty to two hundred fibres are contained in an ordinary thread of sewing silk. For coarse broad goods, the same number may be reeled; but for the finer goods, gauzes, &c., five to ten fibres only, or for the finest, only two fibres are reeled together.

If the learner has followed the above instructions, he has probably been able to get quite a skein or hank of raw silk on his reel. I am sorry to disappoint him, but must tell him, it is good for nothing. I was desirous of enabling him to get the *knack* of catching the fibres; attaching them to the running thread; of learning the proper tempe-

rature of the water; and giving him a little experience in nearly winding off a parcel of cocoons, that he might become acquainted with the outlines of the art, and get the use of his tools. As said before, the silk reeled merely as above, will generally be worthless—it requires more care.

If the Piedmontese reel be used, two threads, of ten to twenty or thirty fibres each, are attached to the reel at the same time, and kept constantly of the same number of fibres. The proper number of fibres is obtained as before directed; brought together, drawn through the hand to clear them of motes and filth, and then drawn out to see that they run well; then pass them through the eye of the plate, pass the two threads three or four times round each other, separate them and pass them through the eyes on the vibrating bar, thence to the bar of the reel; as soon as they are attached to the latter, let the attendant turn the reel rapidly, and the reeler return to the pan to provide fibres for those cocoons that become detached or exhausted.

It will keep the reeler pretty busily employed in catching fibres, and dexterously throwing the ends upon the thread as it passes up, to keep the proper number of cocoons running in both threads. Keep a basket of cocoons by your side, and put in fresh ones to supply the place of those already in the basin, from time to time, as they are exhausted. Take care that there be not too many in the basin at the same time, nor too few; as in the former case, some of them will become too loose, and in the latter, the reel must stop until the fresh ones are soaked enough to run freely. Observe the following rules strictly: whatever be the number of fibres you begin with, keep that number steadily in the thread, that it may be uniform and even;—change the water as often as it becomes foul, and always use perfectly clear rain or river water, letting it stand for a time before use, that the sand, if any be in it, may settle before putting it into the pan. Well or spring water is generally too hard for the purpose. Avoid all carelessness and slovenliness—and remember that, *care is money*, in reeling silk. Let it be borne in mind, that the value of silk is increased or diminished by the manuer in which it is reeled, very materially. One reeler will make his day's work in reeling worth five or six dollars, while another will only be worth two or three dollars, both reeling the same quantity of cocoons. Hence the value of care and attention. Attention to *small matters*, too, is here of the utmost importance. Indeed, the whole process is but a series of small, *very small matters*, no one of which can be neglected but at the expense of a material reduction in the quality of the silk. For example, if the water be too hot, the thread will be knotty, from the kinks or burs of the fibre that run up; if it be foul, from allowing the shells of the chrysalids to remain in it, the silk will be covered with motes; and if the number of fibres be not constantly kept the same, the thread will be uneven; all which deteriorate the quality of the silk, and therefore reduce materially the profit of the day's labor; but all which can be obviated without difficulty, by strict attention. I need not harp upon this subject longer, I am sure. Those who will take the above advice will profit by it;—those who will not, will be forced to adopt it by experience.

After an ordinary sized skein is wound upon the bars of the reel, it is to be taken off, hung up, and another skein commenced in the same manner. The reel generally has two or more sets of arms, and when a skein is full, the arms or running part of the reel is taken off the frame and set aside to dry the silk, after which it is taken from the bars, placed upon a *swift*, and wound on to bobbins; when any num-

ber of the bobbins may be combined, called doubling, and twisted together on a common spinning wheel, to make sewing silk.

If it be intended for sale in the state of raw silk, the skeins are to be carefully twisted and doubled, and thus brought into a compact form, tied with a string, and thus packed up for market.

For *sewing silk*, a sufficient number of bobbins are to be combined to make one thread of sewing silk, twisted on a common wheel, reeled off into banks, the latter twisted partially, and folded by taking two or three turns, as in preparing common yarn for dyeing, put into some perfectly clear rain or river water, in which a quarter of a pound of good country soap to the gallon of water has been dissolved, and *simmered* over the fire three or four hours, or until the silk is perfectly freed of its gum, and becomes white. It must then be taken out, rinsed in hot rain or river water, and then in cold water. In this operation great care must be observed to dip it gently, drawing it to and fro in the water, so as not to get the silk tangled, or in a snarl. It is then to be hung up to dry; after which it may be doubled and twisted into sewing silk. It should never be put up into large skeins, as it is apt to get tangled. One hundred threads is a good sized skein. If the whole work has been properly done, the silk will be beautifully white, with a rich gloss.

Before the last twisting for sewing silk, if to be coloured, it may be dyed of the desired colour, and then twisted.

The above directions will apply to all kinds of reels generally. The only difference consists in the following particulars. With Brooks' and other reels of American construction, the silk is run directly upon bobbin, two or more bobbins are combined, and the thread produced passes through fliers and is thus twisted; it is then wound upon a common reel into banks, and folded for bleaching by boiling, as above described.

Brooks' machine is said to reel double and twist at the same time; but it does not do it strictly speaking. The thread first passes on to the bobbins partially twisted; when the bobbins are full, the thread from two or more of them is combined, and passed through the machine again, when it is twisted into sewing silk. There are four fliers to this machine, two are used for reeling and the other two for doubling and twisting the silk that has before passed through the other fliers. I think it were better to use all the fliers for reeling; and after reeling as much as is desired, then to use all the fliers for doubling and twisting. For domestic family purposes, this machine is admirably adapted. It makes excellent sewing silk and thread for knitting. Large establishments will of course not need instruction as to the machinery to be used, from me.

Waste silk, perforated and imperfect cocoons, may be easily converted to useful purposes. The cocoons are to be cut open with scissors, the shell of the chrysalis taken out, and the cocoon, together with all other waste silk, put into water, and the gum extracted as above. It is then to be rinsed, dried, picked fine, carded and spun like flax-tow, and makes most beautiful and durable stockings and gloves. The better method is, after the gum has been extracted, to take the mass of fibre, stretch it out, and cut the whole into pieces five or six inches long, like cutting a skein of yarn. The fibres are then not too long for the operation of carding.

Concluding Remarks.

I have now given all the instructions necessary to a complete domestic silk establishment; such as will enable every farmer's family to pursue the business in a domestic way, and to make it the most profitable *pin-money* affair to which the young ladies can possibly turn their attention. Indeed, all they make from it will be so much clear gain; for none but otherwise idle hours need be appropriated to it, except in the reeling, and in most cases not even in that. A young lady in any farmer's family, can thus make five to ten pounds of sewing silk or knitting silk, or raw silk for sale; and not only not work hard, but do scarcely more than occupy hours that would otherwise hang heavily on her hands.

I feel called upon by the peculiar situation I occupy, to make a few remarks in relation to the profits and prospects of the silk-culture in the United States. I have said before, that we shall become a great silk producing country; that ere long we shall supply the factories of Europe with the most valuable part of their raw silk, as we do now with cotton. This, I conceive, nothing can prevent. That we shall also, in the course of no very long time, become the manufacturers and exporters of finished silk goods, is clearly inferrible from the first proposition. From this it will of course be inferred that I consider the production of silk, in all its branches, a profitable business; and I do so consider it. My experiments for twelve years past have clearly satisfied my mind upon this point. But I do not consider it as profitable as many of the ardent friends of the cause would make us believe. I do not consider it sufficiently profitable to authorize farmers, mechanics, lawyers, doctors, and merchants, universally to abandon their old and well understood pursuits, to enter into this, which they do not understand. It is undoubtedly a safe and a lucrative business, when well understood and well pursued; but that *any body* can give up his ordinary occupation, step into this, and make his fortune by it, like the drawing of a prize in a lottery, must not be expected. We often see calculations made of the amount of money that can be made from an acre of ground. All such are clearly fallacious. No dependence can be placed upon them, simply because the business has not been sufficiently practised in this country to afford any good grounds for them. And then, again, as *labour* with us is more costly than land, it is more proper to inquire how much *each hand* can make, especially as more than nine-tenths of the value of the silk is derived from the labour expended in its production. But no estimate can be made even of the profits of labor in consequence of our want of experience. But that we shall ever realize the great profits from this business that we are continually told we shall, seems improbable from the very nature of things. Why, if such great profits can be made from the culture of silk as \$1000 to \$2000, from an acre of ground, and that too, as we are told, with very little labour, and to the extent of as many acres as we please, why, I ask, are not France and Italy, nay all the south of Europe, where silk has been made for ages, universally engaged in the business? Why are they continually purchasing the raw silks of the East for their factories? Will any people import an article for consumption that they can produce at home at less cost? Labour is cheaper there than here, and consequently one would suppose they could make as much profit by the silk culture as we can. It is true we have several important advantages over every other country. We have a climate better adapted to it; our people are more enterprising

and industrious; we can use the *morus multicaulis*, (which they cannot, on account of the difficulty of getting over ancient prejudices, and of substituting it for their already established trees of other kinds.) But we have also our disadvantages, the principal of which is the cost of labour. We cannot expect to do much more with our advantages than to make them offset the disadvantage of the cost of our labour. Suppose, however, we do realize double the profits that they do; even then we shall not make any thing like the profit we are told we shall. If the silk growers of Europe made any thing more than a good living business of it, every body there would immediately go into it; for there, as well as here, and every where else, all very profitable professions, or trades, are sure to be immediately filled with occupants, and thus overdone. Another view. If the business was so very profitable, the prices of the article would speedily be reduced by competition, until it afforded a fair profit merely. It is so in all other branches of trade—why not in this? The French and Italians are surely as capable of estimating the value of things as we are. If silk can be made for four dollars a pound, and it cost six dollars to import it, we will be sure that it will be made, not purchased. These remarks are not made to discourage persons from going into the culture of silk; but rather to prevent disappointment in those who are led astray by over sanguine estimates. I find myself placed in a singular predicament. For many years past I have been urging this business upon public attention, and doing all I could to induce our people to go into it; now, on the contrary, I feel called upon to restrain the spirit I have heretofore spurred to action. In this I anticipate that I shall be accused of inconsistency. But, if I am properly understood, no such fault will be discovered. Now, as heretofore, I urge upon farmers every where to introduce the business into their domestic affairs. Let the people of the *poor-land districts* of the old States introduce it there. It will be as profitable, if not more so, than the cotton crops, and grain crops of other and more favored districts, and will thus serve to equalize the productions of all parts of our country. The old worn-out lands of Maryland, Virginia, North-Carolina, &c., cannot by any possibility be put to a more profitable use. But neither in this nor in any other case where it is made an exclusive business, must it be expected that enormous profits are to be made. It must be remembered that *great profits* cannot be made in any business for any great length of time, simply because every body will go into it, overdo it, and thus reduce its profits to a mere living rate. With these remarks I take leave of the subject.

GIDEON B. SMITH.

Experiment with Maryland Twin Corn.

[FROM THE FARMER'S REGISTER.]

Chericoke, King William County, March 23, 1839.

As I believe the merits and demerits of the Maryland twin-corn is still a mooted point among my brethren of the corn planting and raising craft of lower Virginia, it may not be entirely uninteresting to some of the vocation, that I should state the result of an experiment made by me last year. I have now been planting the twin-corn four years, procured from Col. Mercer, of West River, Maryland, and doubtless the same corn as recently advertised by Mr. Sinclair, of Baltimore, as

the "true tree prolific corn." But with entire deference to Mr. Sinclair's better judgment in the matter, I think he has given the corn a misnomer, and misrepresented some of its characteristics; it is undoubtedly a very prolific variety of corn, and it is very white, but I have as yet discovered nothing of a *tree character* about it; and it certainly matures from a fortnight to three weeks earlier in the tide-water country of Virginia, than the common corn grown with us. Like all other corn that I have heretofore met with, it is true, that it flourishes better, and produces more, in rich land than poor; but still my experience leads me to believe it as well adapted to the one as to the other, and that it will be found to produce on any land under similar circumstances, more than the usual varieties. Its advantages, as I think, consists in its being more productive, more forward, less liable to rot in the field, heavier than any kind we grow except the hominy corn, and consequently yielding more meal; and certainly one great advantage it has over most other kinds, it yields from five to ten per cent. more in shelling from the cob. It will resist the weevil too, longer than most corn grown with us, and the meal and hominy made from it, is generally allowed to be very superior. The stalk being smaller, it of course resists the drought better than the larger corn, as I had full proof the two last summers. As before stated, I have been growing the twin-corn for four years, and for two years previous to the last, (1838,) I had planted no other kind, and was well satisfied with the results, but some friends, in whose judgment and experience I had great confidence, as farmers, insisted upon it that I was deceiving myself, that it would not produce as much as the common corn of our country, determined me that I would make a fair experiment with it, and one of the best varieties of the common corn grown in my neighborhood, highly esteemed by the friend from whom I obtained it, as well as others, they being confident it would produce more than the twin. When planting, I directed my manager, (an intelligent, observing, and attentive young man,) after laying off a piece of land ready for dropping the corn, the rows being all of equal length, to count the number of rows, and plant one half of the common, and the other of twin-corn. There proved to be one hundred and three rows in the piece; he planted fifty-two rows in the common, and fifty-one in the twin, the distance both ways the same, five and a-half feet by two, all planted on the same day, in the same manner, and the culture throughout the year the same. The land was all pretty good for this section, but that on which the common corn was planted, I think rather the best. I have recently measured the piece of ground, and find it to contain nineteen and a fraction acres. We were at every pains in gathering and measuring the corn, to avoid any mistake, and the result was, that the common corn made fifty-eight and a-half barrels, and the twin ninety nine, from the nine and a-half acres each. I also tried on another farm a similar experiment, and the result was fully as conclusive. Some now object that the season did not suit the common corn; but I presume it was equally "fair for the goose as the gander," if the season had been more propitious, each, doubtless, would have made more. In consequence of the stalk being made smaller, many think that the twin corn should be planted thicker than the common, but that I think a mistake, as I have always found there was double as many shoots on a stalk as it could mature, and that it always bears in proportion to any reasonable distance you may give it, and the strength of land and seasons; I therefore plant mine generally, as I would any other kind of corn, by giving distance sufficient;

the ears are larger, and it is the better enabled to stand a drought, there being always more shoots than the stalk can mature, they will fill out, as the land and season may allow.

As the twin-corn has become more acclimated, the ears have become larger, and perhaps it may not be quite as forward as it was when I first got it; but in all other respects it appears to retain its original character—certainly its fecundity.

CORBIN BRAXTON.

On the Management of the Dairy, particularly with respect to the Making and Curing of Butter; by Dr. JAMES ANDERSON.

(From Anderson's Essays.)

When a dairy is established, the undertaker may sometimes think it his interest to obtain the greatest possible *quantity* of produce; sometimes it may be more beneficial for him to have it of the *finest quality*, and at other times it may be necessary to have both these objects in view, the one or the other in greater or less proportion; it is therefore of importance that he should know how he may accomplish the one or the other of these purposes, in the easiest and most direct manner.

To be able to convert his milk to the highest possible profit in every case, he ought to be fully acquainted with every circumstance respecting the manufacture both of butter and of cheese; as it may in some cases happen that a certain portion of that milk may be more advantageously converted into butter than into cheese, while another portion of it would return more profit if made into cheese. It is not, however, intended in the present essay to enter into this wide discussion. Here, it is only proposed to treat of the manufacture of butter, leaving the subject of cheese-making to some other person to treat of, who is more conversant in that department than the author of this essay.

The first thing to be adverted to in an undertaking of this nature is, to choose cows of a proper sort. Among this class of animals, it is found by experience, that some kinds give milk of a much thicker consistence, and richer quality, than others; nor is this richness of *quality* necessarily connected with the smallness of the *quantity* yielded by cows of nearly an equal size; it therefore behoves the owner of a dairy to be particularly attentive to this circumstance. In judging of the value of a cow, it ought rather to be the quantity than the quality of the *cream* produced from the milk of a cow in a given time, than the quantity of the milk itself. This is a circumstance that will be shown in the future to be of more importance than is generally imagined. The small cows of the Alderney breed afford the richest milk hitherto known; but individual cows in every country may be found, by a careful selection, that afford much thicker milk than others; these, therefore, ought to be searched for with care, and their breed reared with attention, as being peculiarly valuable.

Few persons who have had any experience at all in the dairy way, can be ignorant, however, that in comparing the milk of two cows, to judge of their respective qualities, particular attention must be paid to the time that has elapsed since their calving; for the milk of the same cow is always thinner soon after calving, than it is afterwards; as it gradually becomes thicker, though generally less in quantity, in pro-

portion to the time the cow has calved. The colour of the milk, however, soon after calving, is richer than it afterwards becomes; but this, especially for the first two weeks, is a faulty colour, that ought not to be coveted.

To make the cows give abundance of milk, and of a good quality, they must at all times have plenty of food. Grass is the best food yet known for this purpose; and that kind of grass which springs up spontaneously on rich dry soils is the best of all.* If the temperature of the climate be such as to permit the cows to graze at ease throughout the day, they should be suffered to range on such pastures at freedom; but if the cows are so much incommoded by the heat as to be prevented from eating through the day, they ought, in that case, to be taken into the cool shades for protection, where, after allowing them a proper time to ruminant, they should be supplied with abundance of green food, fresh cut for the purpose, and given to them by hand frequently, in small quantities, fresh and clean, so as to induce them to eat it with pleasure.† When the heat of the day is over, and they can remain abroad with ease, they may again be turned into the pasture, where they should be allowed to range with freedom all night during the mild weather of summer.

Cows, if abundantly fed, should be milked three times a day during the whole of the summer season;‡ in the morning early, at noon, and in the evening, just before night-fall. In the choice of persons for milking the cows, great caution should be employed; for if that operation be not carefully and properly performed, not only the quantity of the produce of the dairy will be greatly diminished, but its quality

* So little attention has hitherto been bestowed on this subject, that I do not know of any regular set of experiments that have ever yet been made with a view to ascertain the effects of any of the natural grasses that spontaneously spring up in abundance on our fields, either on the *quantity* or the *quality* of the milk of cows, and few that have been attempted even with regard to those plants that have been cultivated by art, as green forage for them; though it be well known that some particular kinds of plants strongly affect the taste, and alter the quality of particular products of milk. It is, indeed, in all cases, confidently asserted, that old pastures alone can ever be made to afford rich butter or cheese. This, however, I know from my own repeated experience to be a popular error, as I have frequently seen much richer butter made by one person from cows that were fed in the house, chiefly with cut clover and rye-grass, than that which was made by others, where the cows were fed on very rich old pastures. Mankind are, in general, disposed to throw the blame of every failure upon some circumstance that does not reflect on themselves as bad managers. Hence it is, that the grass of a farm is often blamed for the want of richness of the butter produced upon it; when, if the circumstances were fully investigated, it would be found to be occasioned by the unskilfulness of the dairy-maid, or the want of attention in the choice of proper cows.

† In very warm climates, where the heat is extremely oppressive to cows, and the flies are exceedingly troublesome, sheds open on one side, the roof being only supported there by pillars, would not afford them such effectual shelter as they would require. In these cases, the sheds should be walled up on both sides, and be left open only at the two ends, which, if properly placed, would produce a continual stream of air throughout the whole building, that would prove highly salutary to the cattle.

‡ If cows be milked only twice in the day, (24 hours) while they have abundance of succulent food, they will yield a much smaller quantity of milk in the same time than if they be milked three times. Some attentive observers I have met with, think a cow in these circumstances will give nearly as much at *each time*, if milked three times, as if she were milked only twice. This fact, however, has not, that I know of, been ascertained by experiment. There can be no doubt but they give more, how much, is not ascertained; nor whether it would be advantageous in any case to milk them four times, or oftener; or what effect frequent milking produces on the *quality* of the milk.

also will be very much debased ; for if all the milk be not thoroughly drawn from a cow when she is milked, that portion of milk which is left in the udder, seems to be gradually absorbed into the system, and nature generates no more than to supply the waste of what has been taken away. If this lessened quantity be not again thoroughly drawn off, it occasions a yet farther diminution of the quantity of milk generated ; and so on it may be made to proceed in perpetual progression from little to less, till none at all is produced. In short, this is the practice in all cases followed, when it is meant to allow a cow's milk to dry up entirely without doing her hurt. In the manner, therefore, the profits of a dairy might be wonderfully diminished ; so that it much behoves the owner of it to be extremely attentive to this circumstance, if he wishes to avoid ruin. It ought to be a rule without an exception, never to allow this important department to be entrusted, without control, to the management of hired servants.* Its importance will be still more manifest from what follows :

In the management of a dairy, the following peculiarities respecting milk ought to be very particularly adverted to ; some of them are, no doubt, known in part to attentive housewives, but they never yet, I have reason to believe, have been adverted to as their importance deserves ; and by many have never been thought of at all. I put them down in the form of aphorisms, that they may be more adverted to, and the easier retained.

Aphorism I.

Of the milk that is drawn from any cow at one time, that which comes off at the first is always thinner, and of a much worse quality than that which comes afterwards, and the richness goes on continually increasing to the very last drop that can be drawn from the udder at that time.

Few persons are ignorant that milk, which is taken from the cow last of all at milking, which in this country is called *strokkings*, is richer than the rest of the milk ; but fewer still are aware of the greatness of the disproportion between the quality of the first and the last drawn milk from the same cow at one milking. The following facts respecting this circumstance were ascertained by me many years ago, and have been confirmed by many subsequent experiments and observations.

Having taken several large tea-cups, exactly of the same size and shape, one of these tea-cups was filled at the beginning of the cow milking, and the others at regular intervals till the last, which was filled with the dregs of the strokkings. These were each weighed, the weight of each cup being settled so as to ascertain that the quantity of milk in each was precisely the same ; and from a great number of experiments, frequently repeated, with many different cows, the result was in all cases thus :

1. The quantity of cream obtained from the first drawn cup was, in every case, much smaller than from that which was last drawn ;

* Cows should always be treated with great gentleness, and soothed by mild usage, especially when young and ticklish, or when the paps are tender ; in which last case, the udder ought to be fomented with warm water before milking, and touched with the greatest gentleness, otherwise the cow will be in danger of contracting bad habits, becoming stubborn and unruly, and retaining her milk ever after. A cow never lets down her milk pleasantly to the person she dreads or dislikes. The udder and paps should always be washed with clean water before milking ; but care should be taken that none of that water be admitted into the milking pail.

and those between afforded less or more, as they were nearer the beginning or the end. It is unnecessary here to specify these intermediate proportions; but it is proper that the reader should be informed that the quantity of cream obtained from the last drawn cup, from some cows, exceeded that from the first in the proportion of *sixteen to one*. In other cows, however, and in particular circumstances, the disproportion was not quite so great; but in no case did I find it fall short of the rate of *eight to one*. Probably, upon an average of a great many cows, it might be found to run at *ten or twelve to one*.

2. The difference in the *quality* of the cream, however, obtained from these two cups, was much greater than the difference in the *quantity*. In the first cup the cream was a thin tough film, thinner, and perhaps whiter, than the paper on which I write; in the last, the cream was of a thick *butyrous* consistence, and of a glowing richness of colour, that no other kind of cream is ever found to possess.

3. The difference in the quality of the *milk* that remained after the cream was separated, was perhaps still greater than either in respect to the quantity or the quality of the cream. The milk in the first cup was a thin bluish liquid, like as if a very large proportion of water had been mixed with ordinary milk; that in the last cup was of a thick consistence and yellow colour, more resembling cream than milk, both in taste and appearance.

From this important experiment it appears, that the person who, by bad milking of his cows, loses but half a pint of his milk, loses, in fact, about as much cream as would be afforded by six or eight pints at the beginning, and loses besides, that part of the cream which alone can give richness and high flavor to his butter. Many other useful corollaries may be drawn from it, which I do not at present stop to enumerate. Some of them will occur in the sequel.

Aphorism II.

If milk be put up in a dish and allowed to stand until it throws up cream, that portion of cream which rises first to the surface is richer in quality, and greater in quantity, than what rises in a second equal portion of time; and the cream that rises in the second interval of time is greater in quantity and richer in quality than that which rises in a third equal space of time; and that of the third than the fourth, and so on, the cream that rises decreases in quantity, and declines in quality continually as long as any rises to the surface.

My experiments not having been in this case made with so much accuracy as in the former, I have not been enabled to ascertain the difference in the proportion that takes place in equal proportions of time; but they have been so often repeated as not to leave any room to doubt the fact; and it will be allowed to be a fact of no small importance in the management of the dairy. It is not certain, however, but that a greater *quantity* of cream may upon the whole be obtained from the milk by taking it away at different times; but the process is so troublesome as not to be counter-balanced by the increased quantity obtained, if indeed an additional quantity be thus obtained, which is not as yet fully certain.

Aphorism III.

Thick milk always throws up a smaller proportion of the cream it actually contains to the surface, than milk that is thinner, but that cream is of a richer quality; and if water be added to that thick milk it will afford a considerable greater quantity of cream than it would have done if allowed to remain pure; but its quality is at the same time greatly debased.

This is a fact that every person attentive to a dairy must have remarked; but I have never heard of any experiment that could ascertain either the precise amount of the increased quantity of cream that might thus be obtained, or of the ratio in the decrease of its quality; but it ascertains the effects at least of mixing water with the milk in a dairy; and the knowledge of this fact will enable attentive persons to follow that practice which they think will best promote their own interest.

Aphorism IV.

Milk which is put into a bucket, or other proper vessel, and carried in it to any considerable distance, so as to be much agitated, and in part cooled, before it be put into the milk pans to settle for cream, never throws up so much or as rich cream, as if the same milk had been put into the milk-pans directly after it was milked.

In this case it is believed the loss of cream will be nearly in proportion to the time that has elapsed, and the agitation it has sustained after being drawn from the cow. But I am not as yet in possession of any experiments that sufficiently ascertain how much is to be ascribed to the time, and the agitation, taken separately. On every branch of agriculture we find experiments wanting at each step we advance in our inquiries. The labors of no one man can complete the whole; but it is the duty of every inquirer to point out, as he goes along, where they are wanted.

The Twin or Okra Cotton.

[FROM THE FARMER'S REGISTER.]

Columbia, March 26, 1839.

* * * * *

I have a new species of cotton, of which I will some day try and give you an account. I know too little yet to venture to give any thing for the public; but I will give you a very short account of what I do know.

A Mr. Terry, of Autauga county, Alabama, some years ago, bought some Petit Gulf seed. A single stalk was observed in a field, without limbs, and having great numbers of bolls adhering immediately to the stalk, or in clusters on very short limbs. The cotton had all been picked out except a single lock with nine seeds. From these seeds the variety has been propagated. The seed sold in 1837, at 50 cents a piece. Last fall I bought at \$160 a bushel. The cotton examined by me exhibited a distinct variety. It had rarely any limbs longer than one joint, sometimes two; the bolls were two, three, and as much as seven in a cluster. I had one limb about four inches long, with seven good bolls opened on it. The stems of all of the bolls shooting from one place, at the top of the short limb. The cotton was exceedingly fine, being, I think, two to four cents a pound better; being in colour and staple the finest and softest short staple I have ever seen. It opens earlier. The field I examined was planted the 20th April. A very intelligent gentleman, living in the neighborhood, told me he planted similar land on the 1st of April, and that the new cotton was open two weeks earlier than his. It grows in good land quite tall, say six or eight feet; and in this I fear, will be the greatest objection to it, as it may fall when heavily fruited towards the top; but perhaps this

may be avoided by topping. Its advantage to an Alabama planter, if it succeeds in rich prairie lands, will be its early opening by which the worm will be avoided, a terrible enemy, which has eaten up full one-third of my crops for five years. The appearance of the stalk is more like okra than any other—the leaf being a cotton leaf. If the "humbug" succeeds, I value it more than multicaulis, and will give you an account at some day.

In the mean time, I remain very truly, yours,

F. H. ELMORE.

Greene, Ala., April 11, 1839.

Though Virginia is not a cotton growing State, and you consequently cannot feel the same immediate interest in our southern staple that you do in many other productions of the soil better suited to your climate, still, from the position you occupy before the agricultural public, and the interest you naturally feel in *all* things connected with the subject of agriculture, I flatter myself a few seeds or a variety of cotton recently brought into notice, which I take the liberty of forwarding you, will not prove unacceptable. It is styled the "twin" or "Aldridge" cotton, taking its first appellation from the peculiar manner in which the branches originate from the stalk, I think, (for I have never seen it growing;) its second from the name of the gentleman who brought it before the public. Whence or how it originated seems to be a matter of doubt. Some saying that it accidentally, as it were, sprung up in a cotton field of Mr. Aldridge, the seed of which he carefully preserved—others that it was brought from Louisiana, &c. &c. All this is conjectural, and though evincing a pardonable curiosity, has but little to do with the intrinsic advantages of the article. Yet these have not been so fairly tested as positively to be determined. Those claimed for it, however, are its being better able to stand the effects of a drought, not casting the squares, however severe this may be; and from the extreme shortness of its branches, it will bear much closer planting; which connected with the fruitfulness of each individual plant, render it a much more prolific variety than others. It is not contended that the staple is of a very superior quality. 'Tis said to grow with great rapidity. From its recent origin, small beginning, and the price of the seed, *fifty cents a piece, only*, its cultivation has been quite limited; and further experience is required to decide its fate. Whether it will eventually prove that it has been brought into notice, as the price would seem to indicate, for purposes of speculation, like many other articles, will ere long be determined. Yet, it is a singular variety, and I wish I could send you more of the seed, that you might give it a more extended test in Virginia; but I spare you more than half of a small parcel which a friend has just given me. There is no peculiarity attending its cultivation; and your climate no doubt is sufficiently favorable to promise success to your experiment: or, if it fail, it will be so limited as not to create any very *serious shock*.

The two foregoing extracts from private letters, seem to refer to the same new variety of cotton; and as each correspondent enclosed a few of the seeds, we shall be enabled to rear and compare the plants. Deeming the information as not only curious and interesting, but as promising much value to the agricultural interests of the South, we wrote immediately to ask leave of the first correspondent to publish his *preliminary statement*, in advance of the more full future information he had promised. This he kindly accorded, and therefore we

are authorized to give, what is always so desirable, the writers signature to his statement. Time did not permit a like application to the other and more remote correspondent; or leave would also have been asked of him to publish what he designed to be private; and, therefore, in *taking* the liberty, the name of the correspondent is withheld. The high authority which we attach to the opinions of both these gentlemen, offers to us a much better assurance of the superior value of this new kind of cotton, than the enormous price of its seed. Still it would seem there is no mode so effectual to introduce a new thing, whether it be of the most valuable kind, or the most palpable humbug and cheat, as to ask for it a price of the most unheard of enormity. If, according to the heretofore liberal and universal procedure of southern agriculturists, the first holders of this variety of cotton, had offered to give away seeds, or to sell them at merely a fully remunerating price, few persons would have cared to plant them. But by pursuing the contrary course, and asking fifty cents a seed, the anxiety to obtain them has probably been increased in the ratio of the advance of price. All this is well, if confined to real improvements; and if such cannot be introduced by operating by means of reason and sound precept, it is certainly desirable that it should be done by operating on the credulity and folly of the recipients. But, unfortunately, it has come to be considered that the high price asked for new seeds, &c., is *alone* sufficient evidence of their intrinsic value; and hence dupes are continually made by the vilest and grossest impositions that can be imagined. Thus Grant Thorburn's "Chinese corn," at twenty-five cents, and latterly one dollar the ear, has been sold as readily as if its alleged superior qualities were supported by the most indisputable evidence, instead of by none whatever, except the price.

But let us not quarrel with the workings of folly, if they lead to wise and profitable results; and we may bear even that dupes should be made, (as they *prefer* this mode of instruction,) by the sellers of Chinese corn and multicaulis seed, in consideration that the same kind of folly will introduce and establish the culture of the Rohan potato, (recently selling at twenty-five cents the pound,) the okra cotton, (if it should be what it is supposed,) the morus multicaulis, and, what will be of incalculable value and importance to the country, the great industry of silk-culture. For our countrymen closed their ears to all arguments in favor of their entering upon this culture, until the plants to feed on rose to three cents the bud; and now, thousands are about to feed worms, induced at first solely by the high price of the morus multicaulis; and we entertain no doubt but that this most valuable culture will now be speedily and surely established.—*Ed. Far. Reg.*

Comparative cost of Hay, Roots, &c. for feeding Stock.

Extract from the Address of Rev. H. Colman, Commissioner of the Agricultural Survey of Massachusetts.

"I wish briefly to draw the attention of farmers to the value of hay, compared with other crops, for the feeding of stock. An acre of hay yields one ton and a half of vegetable food. An acre of carrots, or Swedish turnips, will yield from ten to twenty tons; say fifteen tons, which is by no means an exaggerated estimate. It has been ascertained by experiment, that three working horses, fifteen and a half

hands high, consumed at the rate of two hundred and twenty-four pounds of hay per week, or five tons one thousand and forty-eight pounds of hay per year, besides twelve gallons of oats each per week, or seventy-eight bushels by the year. An unworked horse consumed at the rate of four and one-quarter tons of hay in the year. The produce, therefore, of nearly six acres of land is necessary to support a working horse by the year; but half an acre of carrots, at six hundred bushels to the acre, with the addition of chopped straw, while the season for their use lasts, will do as well if not better. These things do not admit of a doubt. They have been subjects of exact trial.

"It is believed that the value of a bushel of Indian-corn in straw and meal, will keep a healthy horse in good condition for work a week. An acre of Indian-corn which yields sixty bushels will be ample for the support of a horse through the year. Let the farmer, then, consider whether it be better to maintain his horse upon the produce of half an acre of carrots, which can be cultivated at an expense not greatly exceeding the expense of half an acre of potatoes, or upon half an acre of ruta baga, which can be raised at a less expense than potatoes, or upon the grain produce of an acre of Indian-corn, or, on the other hand, upon the produce of six acres of his best land in hay and grain; for six acres will hardly do more than to yield nearly six tons of hay and seventy-eight bushels of oats. The same economy might be successfully introduced into the feeding of our cattle and sheep.

"These facts deserve the particular attention of the farmers who are desirous of improving their pecuniary condition. It is obvious how much would be gained by the cultivation which is here suggested; how much more stock would be raised, how much the dairy produce might be increased; and how much the means of enriching the land, and improving the cultivation, would be constantly extending and accumulating. But when we find on a farm of two hundred acres, the farmer cultivates only two acres of potatoes, one acre of ruta baga, and perhaps a quarter of an acre of carrots, we call this 'getting along,' in the common phrase, but we can hardly dignify it with the name of farming. I am aware that labor of a proper kind is in many cases difficult to be procured, and with our habits, as difficult to be managed. Farming, likewise, can in few situations be successfully managed, unless the farmer has capital to employ, equal at least to one year's manure, and one year's crops. A large portion of our farmers, also from the nature of their habits and style of living are so prosperous and independent, that they have no occasion to extend their cultivation beyond what it now is, in order to meet their wants; and to incur all the trouble, vexation, and risk of employing more labor, expending more capital, and increasing their cares."

Root Culture—Beets.

[FROM THE NEW-YORK CULTIVATOR.]

Of whatever variety, whether for sugar or for cattle, require the same soil and the same culture. The mangel wurtzel, or scarcity beet, has hitherto been the principal kind cultivated for farm stock, though the blood beet has been occasionally, and the sugar beet recently—both grown for this purpose.

Beets, like all tap-rooted plants, require a deep soil, as it seldom happens that the roots enlarge much in the subsoil, or below where

the earth is moved by the plough or spade. Moist loams, either of sand or clay, suit them best; though they grow on all soils not wet or very stiff, provided they are made rich and mellow. The mangel wurtzel will do better on poor lands than the other sorts.

The deeper the ground is ploughed, the more thoroughly it is pulverized, and the more intimately the manure is incorporated with the earthly matters, the better prospect of a crop. Pulverization is particularly necessary to the germination of the seed. The harrow should therefore be efficiently used before the seed is deposited in the soil.

The manner of planting the beet, of whatever kind, is in drills, which may be done either by the drill harrow, or from the hand. Mangel wurtzel should be in rows twenty-seven to thirty inches apart, and the plants, when out of the reach of insects, thinned to twelve or fifteen inches in the row, as the object is to obtain large size. The table and sugar beet may be grown in rows from twelve to twenty-four inches apart, and may be left to grow at six to ten inches in the rows—the object being not great size, but good quality—and it being found that the quality of medium or small sized roots, is better both in regard to flavor and saccharine matter, than that of very large roots. Some prefer soaking the seed, and some even sprouting it, before it is sown; as it is husky, and in case of dry weather, frequently does not germinate. But if the seed is put into fresh ploughed ground, planted early in the season, and a roller passed over the surface after it is covered, or the ground pressed with the hoe or foot, the seed seldom fails to grow. The seed should be covered three-fourths to an inch deep; and as the young plants are liable to be destroyed by the grub, and even turnip fly, it is advisable to sow thick, say from three to four pounds of seed to the acre.

In the after culture the objects are to keep the crop clean, and the soil mellow. The first dressing may be light, with a cultivator, where the breadth between the rows will admit; but when the plants are well established, the cultivator or small plough should be run deeper, and this operation may afterwards be repeated to advantage. The crop should be harvested as soon as it has ceased growing which is known by the under leaves turning yellow; as, if left in the ground longer, the roots deteriorate in value.

Mangel wurtzel is the German name; mangel, a *beet*;—wurtzel, a *root*. Their culture was introduced into England, from Germany, about 1820, and more recently they have attracted considerable attention in this country. In 1830, the Doncaster Agricultural Association, an institution which has rendered vast service to the farming interest, sent abroad a circular, among the best English farmers, with a view of collecting all the information upon the culture and use of this vegetable, which was likely to be useful. Nineteen answers were received, from large growers of the root, and the society published, in a condensed form, their purport. The report states, that

“The answers are from every description of soil, the greatest number (nine) from sand, not, it appears, because that kind of soil is most favorable to it, but because on sands, fallow crops, of all sorts, are more generally grown than any other; six are from peat, four from clay, four from chalk or lime-stone.

“The method of sowing appears to be drilling or dibbling on ridges from twenty-seven to thirty inches apart, and afterwards singling out the plants in the rows, at about sixteen or eighteen inches from each

other; the period of sowing, any time between the middle of April and end of May, on cold soils earlier than on warm.

“The tops and leaves should be ploughed into the land immediately.* In comparing the quantity of manure used for Swedish turnips and mangel wurtzel, it appears from the answers of those farmers who have tried mangel wurtzel longest, that both require nearly an equal quantity, ten or twelve two horse cart loads per acre. With respect to the comparative product of the two crops, it appears to be in favor of mangel wurtzel in the proportion of about one-fifth. The greatest weight obtained is by Mr. Simpson, of Babworth—54 tons. Of our correspondents, ten decidedly prefer mangel wurtzel, two give a partial preference to Swedes, and the rest have not expressed an opinion.

“The feeding properties of mangel wurtzel and Swedes are at an important part of our investigation. Lord Althorp alone has tried their comparative merits; and he gives them a decided preference over the Swede. In this opinion his Lordship is supported by Mr. Kelk; but seven of our correspondents are of the opinion that the Swedish turnips will feed quicker. Five of our correspondents say it is beneficial to milch cows, and two of the Norfolk farmers say it is apt to injure the butter.

“To sum up—the advantages of mangel wurtzel are these—
It is more sure to plant, being very little liable to the fly or grub.
It will produce more weight.
It is off the land earlier.

It is useful as a change of fallow crop when the land is tired of turnips.

It will grow on land where turnips cannot be raised.
It is better spring food.

“On the other hand, in favor of the Swedish turnips, it may be said: That the weeding and singling out are less expensive.
There is more time for fallowing in the spring.

The succeeding crop is better than after mangel wurtzel.

Perhaps cattle feed best on Swedish turnips when they are fed alone.”

Mangel wurtzel is relished by every description of stock; though in feeding it to neat cattle, it is recommended to commence with small feeds, and when it produces bad effects, to change the animal's food for a few days. Charles Poppy, an enthusiast in this culture, and whose pamphlet is before us, particularizes twenty-six uses to which this root may be profitably applied.

The British farmers speak highly of this root as a food for young calves. It is cut small and fed to them after they are a fortnight old, with wonderful benefit.

The value of this crop is certainly great in the economy of the farm. Estimating the product at twenty tons an acre, it will give 746 bushels of sixty pounds each; which, at the rate of two bushels a day, would keep a cow, with the addition of a little straw or chaff, 373 days, or somewhat more than a year. Two tons of hay, the average product of an acre, would keep the same animal, allowing a quarter of a hundred per diem, but 160 days, or about one-third of the time that the wurtzel from an acre would keep her—and the animal would be better, in flesh and milk, on the roots, than she would be kept on the hay.

* After the roots are harvested.

In storing and keeping the mangel wurtzel in winter, the same precautions must be taken, and the same means must be adopted, as are required for securing potatoes and ruta baga. If deposited in pits, these should be narrow, and ventilating holes made in the crown of the pits. They are more liable to be injured by frosts than the ruta baga.

The Carrot.

Col. Meacham has anticipated us in giving the culture and profits of this root, in his communication published in our last. Nevertheless we will throw all the new light upon the subject which our experience and our reading afford.

The soil best adapted to the growth of the carrot is a deep sand loam. The preparation of the ground consists in ploughing to the depth of a foot, the application of rotten manure, to be well incorporated with the soil—except long manure has been applied to the previous crop—and complete pulverization. Ploughing the fall previous for the crop is recommended.

The kind of carrot best adapted to field culture is the long red. The seed should be of the preceding year's growth. The mode of culture is best in drills, though in Suffolk, England, sowing broadcast is preferred. We have modern drill-barrows adopted to the sowing of this seed, though the sowing it by hand is not a tedious process—as a man may go ahead in sowing in this way as fast as another drives a barrow. The difference consists in making the drill with the hoe, and covering the seed. As the seed is of peculiar lightness, it is apt not to vegetate well if the surface is light; and the practice has obtained, with large growers, of preparing it before hand, by mixing five pounds of seed with a bushel of sand or fine mould, a week or two before hand, and of moistening and turning the mass frequently; by this means not only do all the seeds grow, but the plants come up quickly, and get the start of weeds. Two pounds of seed is enough for an acre when sown in drills, though five pounds are often sown on an acre broadcast. Von Thaer uses poudrette instead of mould, in the preparation of his seed. The drills should be eighteen inches apart, and the plants thinned to six or eight inches. The seed should be sown early in or by the middle of May.

The after culture of carrots consists in keeping them free from weeds, and the surface of the soil open; and as the rows are too near to admit of the plough or cultivator, the hand hoe must be depended on.

The best mode of harvesting the crop is that adopted by Col. Meacham—turning the earth from the row with the plough, and then drawing them with the hand.

The ordinary yield of the carrots is less than that of ruta baga or mangel wurtzel—the average may be stated at 400 to 500 bushels the acre, though the product has exceeded 1000. They are so hardy, that in the south of England they are permitted to stand out in the winter; but with us they should be gathered and secured like other roots.

The carrot is eaten by all sorts of farm stock, but is particularly useful for horses and milch cows, serving as a substitute for grain with the former, and increasing and improving milk when fed to the latter. Mr. Burrows, one of the greatest growers of this root, has fed ten cart horses with them, during the winter months, and up to June, with hay, and without the addition of grain. Such does he consider their economy in horse feeding, that he states, as demonstrated by his experience, that with the assistance of lucerne for soiling in summer,

a workhorse may be kept the entire year round upon the produce of only one acre of land. Mr. Burrows feeds seventy pounds a day to a horse, cut or whole, and mixed with chopped hay—reducing the quantity somewhat in the short days of winter, and increasing it a little in the spring months. Other growers feed only forty or fifty pounds a day. An acre of carrots, yielding 600 bushels, fed fifty-six pounds a day, would therefore be equivalent to 300 bushels of oats, fed half a bushel a day, to a working horse.

To save seed, save select roots, and keep them in sand in the cellar till spring, plant them out early, and the seed will be ripe in August. Preserve it on the seed stalks till wanted.

The Parsnip,

Is generally believed to be more nutritive than any of the roots we have treated of; the product to be greater than that of the carrot or potato, with the advantage over them both, that the parsnip is not injured by frosts. Yet, its culture as a field crop, has hitherto been very limited.

The parsnip may be grown on stiffer lands than the other roots we have named, provided it has a rich deep tilth. It requires the same treatment as the carrot, though we would prefer intervals of eighteen inches between the rows, as in good soil the tops grow large. The Jersey variety is preferred, on account of small growth of top. Sow early, at the rate of four or five pounds of seed to the acre, and keep the crop free from weeds.

Blessings of Poverty in Youth.

[FROM THE NEW-YORK DESPATCH.]

An English judge being asked what contributed most to the bar, replied, "Some succeed by great talent, some by high connexions, some by a miracle, but the majority by commencing without a shilling." The same remark holds true of almost any calling or profession. A traveller who starts on a journey with a heavy load, or too much baggage, is much less likely to get on with comfort to himself and success in his enterprise, than he who forbears to encumber himself.

Poverty is a sharpener of the wits and an incentive to exertion. No man who has the requisites for success—and every man is fit for something—is apt to let his talents lie in a napkin, if the exercise of them is necessary to his pecuniary support and comfort. If, however, he commences with property sufficient to defer the business of life—to slight the duties which he should perform in the community; the chance is, that when the hour of necessity arrives, he will find himself unsuited by slothful habits and neglected opportunities. The occurrence of these consequences may be recalled to any reader's mind by a recollection of the history of the rich men and the poor men among his acquaintance. Many a poor lad is enabled, by the changes and chances of fortune, to befriend in his need the man who was his rich school-mate.

There are many rich people in the world who have themselves no idea what they are good for—and whose friends have never thoroughly found them out—we mean the rich by inheritance. Maria Edgeworth, whose works were very popular fourteen or fifteen years ago, and ought to be more widely read now, has an excellent story among her other excellent works, entitled "Ennui." The reader of fiction,

if he is not already familiar with it, may hunt for it. With that and the other novelties of the same writer, time may be both pleasantly and profitably employed. Meanwhile, as the incidents are apposite to our argument, we will briefly relate them from the recollections of a perusal fourteen years ago.

The subject of the sketch, the victim of ennui, is a rich Irish resident landholder, whose time hangs awfully heavy on his hands. Having no inducement or incentive to occupation, he is a mere blank in creation, and his restless existence is a positive burthen to himself. He is accounted by his acquaintance a negatively good, harmless, useless, individual, who might shuffle off his mortal coil, and the world suffer no loss by it. So he vegetated for a number of years, in possession of his property, until he accidentally discovered that the estate of which he was in possession—not enjoyment—was not his own. The foster-mother of the real heir had changed infants with the owner of the estate, and given him her child instead of his own. Conscience would not permit him to remain in possession of property acquired by his mother's fraud, and he lost no time in putting the real owner in possession, and launching forth himself, at middle age, into the world, pennyless. The dross of wealth removed, the man shone out. Industry, talent, and application, gave him wealth and character, and by the time the real heir had exhausted his suddenly acquired property, and killed himself in revelling in the enjoyment of uncultivated taste, and low dissipation, our victim of ennui was ready to re-purchase and enjoy the estate which he had so magnanimously surrendered.

To his second possession he brought an acquaintance with himself, and with his own powers. He had acquired habits of employment, and knew how to devote his time with usefulness to his fellows, and occupation and happiness to himself. Ennui was a word no longer in his vocabulary. He had learned "the uses of the world;" and to him they no longer seemed "weary, stale, flat, and unprofitable." It is those only who do not understand the world, and mix in it with a clear conscience, that it does seem so little worth caring about. The guilty may be sick of it, for its events remind them continually of their own bad passages. The weary of pleasure—the sated with enjoyment, may cry out that "all is vanity," and the ascetic may affect to regard the world which God made and pronounced good, not good enough for them. But the true Christian and Philanthropist—the observer of men, of manners, and of nature, will always deem existence a boon worth thanking heaven for. But we are wandering from the subject.

The experience of the suddenly enriched peasant, in the tale to which we have referred, shows the danger of wealth coming to the possessor by surprise. Riches are not wealth unless they are earned dollar by dollar. The eastern sage was right, who preferred that riches should come drop by drop, rather than that the golden stream should be quick and violent. There are men about town—we meet them daily in the streets—who have been rich, and now are poor, in purse, in mind, in character. An unexpectedly fortunate turn to a speculation, a bequest of property from the dead, or perchance a lucky venture in a lottery, has made them wealthy beyond their former conceptions, and almost beyond their desires. Money thus acquired by accident, is seldom, except by accident, retained; and as the purse runs out, the man runs out with it. Of course, in this connexion, we do not intend to allude to those whom the chances of trade have ren-

dered unfortunate. Honestly losing their means, they do not lose themselves with their property—but may be, like the hero of Miss Edgeworth's story, better men for being poorer.

The desire to obtain property, is honest and laudable. Honestly and laudably followed, it brings an improvement of the man with the acquisition of every dollar. The *passion* for acquisition, is another trait of character altogether, and degenerates to avarice. The desire, followed in moderation, makes great from our little men—the passion, indulged to excess, belittles our great ones.

Working Cows.

[FROM THE MAINE FARMER.]

That many “old things are passing away,” and many new things and customs are taking their places, is becoming demonstrable, and may be witnessed throughout the whole agricultural portion of the country; and that there are many improvements yet to be made, is beyond a question,—and why cannot the *working of cows* be considered one of these improvements?

We know it is hard to get an unbiassed hearing when we preach, (and we are hooted at when we practice,) against an established custom.

Once was the time when it was hard preaching against the false economy of putting a stone in one end of a bag that contained a family grist, to balance the grain that was all put into the other end of the same bag.

Working cows may by some be considered the extreme of ultraism; well, be it so, then, are none so blind as those that won't see?

I have a few reasons to offer why cows may be made more profitable than they now are, without much additional expense to their owners.

Many people who keep two or more cows do not want oxen but a small part of the year, and such can do the principal part, if not all their ox labor with their cows.

Cows have been worked, and why cannot they be worked as well as mares that are pregnant, or those that give support to their offspring.

I do not wish to be understood that it is advisable to put cows at all times to the yoke, to perform labor with or like the ox, but they can do the common jobbing work of a small farm. It requires but little labor to break them so that they will work perfectly kind; and should it be found on trial that cows can perform much of the work that many old horses are kept to perform, it must serve to increase the neat stock of Maine, and rid her citizens of many useless, expensive, taxable horses.

Give working cows good keeping, which they should always have, work or no work, and they will do to work eight months out of twelve, and a part of their extra earnings should go for their better keeping.

It has become very fashionable of late years, for many half-way farmers to have half a dozen or less of ordinary horses to rig out a horse team when ox work is to be done; one cause, without doubt, of the increase of horse teams is the extraordinary high price of oxen and ox labor;—oxen have become scarce, and he who should keep two cows, will now sell one to buy an old horse, and this horse will

eat, if he can get it, about as much as two cows ; he soon grows lame and decrepid, and then it is as the old song has it. " Poor old horse, let him die," and instead of being fit for the beef barrel, he is a total loss to his owner ; whereas, if it was an aged cow, that must ere long yield to the grim messenger death, she would in some degree go down to the beef barrel with pleasure, instead of ending her days like the poor old horse, in grief, sorrow, and starvation.

Again, you may take the whole range of mothers through this wide world, whether four legged or two legged, and without a moderate degree of exercise their health is precarious ; and at certain seasons their lives are actually endangered for the want of such exercise as serves to keep the organic system in proper order.

I have never known the same trouble to take place in mares that "C. B. A." speaks of as frequently occurring with cows, and I presume we should not hear of its happening to cows if they were worked as a merciful man would work them.

There are some farmers who need not be at the trouble of working their cows in the yoke for sufficient exercise ; and need I tell you who they are ? They are those who neglect one of the first duties of a good farmer—that is, to provide water for his cattle in the yard or near his barn.

I say there is no need of working cows when they must go a mile or two to get water, at times when any sober man would be in danger of unroofing his upper story for want of a *sandy* foundation ; or as the drunken man said, when he was down on the ice and could not get up, " The wicked stand on slippery places," but I-I-I ca-can-can't st-stan-stand a-at al-l all.

E. G. B.

Soap Making.

[FROM THE GENESEE FARMER.]

We recently mentioned some of the necessary requisites in the manufacture of common soft soap, without an attention to which failure would be the consequence. We have since been furnished with the following particular statement of the whole process by an experienced manufacturer, who has never, in a single instance, failed in making good soap by this method.

The leach-tub should hold about four barrels. In the bottom of it put a little straw to prevent the ashes from falling through ; put in a pailful of ashes and pack it down. Then put in two quarts of *quick-line* ; fill the tub with ashes, packing it closely with a pounder, and leaving the upper surface concave so as to hold two or three pails of water. Fill this cavity with hot water as fast as it soaks in the ashes, till ten or twelve pails have been poured in. Let this be done in the evening. Let it remain about twelve hours. If the ley begins to run from the leach-tub in this time, try it with an egg ; if it bears the egg, it is strong enough. If it has not begun to run at the expiration of the twelve hours, add cold water until it does. If it will not bear an egg, pour the ley upon the ashes again, until it becomes sufficiently strong. If the ashes are good, this quantity will make a barrel of soap.

Put the soap-grease into a vessel over the fire, stir it frequently until it boils, then add a small quantity of ley and make it boil. Add

sufficient ley at intervals, about two or three hours, to have two gallons of ley to four pounds of grease. If the ley should begin to run weak before a sufficient quantity is obtained for this purpose, do not add it until the previous contents of the kettle have boiled nearly enough, except a little should be necessary to prevent its boiling over. To ascertain whether it is boiled sufficiently, mix a small quantity of the newly made soap with an equal bulk of water, and let it cool. The appearance will at once show if the soap be good. When this is found to be the case, add as much cold water as there is ley, stir it well, and the work is finished.

If the ashes are not packed closely enough, the water passes through too rapidly and the ley is weak. If packed too closely, the water cannot get through during the twelve hours. There is, however, little danger of the latter.

If the ley is not strong enough, it will require sometimes a day or two of boiling before good soap can be made. This should therefore be previously well attended to.

If the ley should stand a day, it will not unite with the grease: or if it should, they will separate when they become cold. This appears to be owing to the combination of the carbonic acid of the air with the potash of the ley, rendering it less caustic. If so, the evil might at once be removed by the addition of quick-lime to the ley.

It appears that the corroding quality of soap is owing to a deficiency of grease. If this is the case, the addition of an excess of lime, in making the potash caustic, would not produce any bad effect.

Good soap is sometimes made from ashes of the maple without any lime, but beach ashes absolutely require it.

The consistency of the soap is in a great measure regulated by the addition of water at the end of the process. If the soap is too thick and brittle, it is very liable to become wasted in using. To be in the best condition it should be quite tenacious.

To preserve the grease from becoming mouldy or spoiling, it should be kept in weak ley.

A pine tub is the best thing to keep the soap in—an old tar barrel answers admirably, although it imparts a dark color to the soap at first, but does not injure it. Oak has the texture soon destroyed by the soap, and the tub bursts open.

Force of Winds—Salt Rain.

[FROM THE GENESEE FARMER.]

There are numerous instances on record in the history of storms, both in this country and in Europe, which show that the force and velocity of winds is much greater than is usually supposed. One of the most signal illustrations of this is found in the manner in which water from the ocean, during hurricanes, is driven into the country, and frequently with most injurious consequences to vegetation. In the great gale of September, 1821, the trees on our coast from New-York to Boston, were seriously injured by the salt water taken up by the wind from the ocean and deposited upon them. The sides of the trees most exposed to the gale suffered most in their foliage, which in some instances appeared as if strong brine had been sprinkled over them, being, in a few hours after the gale ceased, dried, and withered as if from fire.

The storm of last January, which was so destructive on our coast, blowing as it did directly from the sea, brought with it to land large quantities of salt water, but occurring in the winter its effects on vegetation were not so perceptible; nor did it cover the windows of houses near the shore with an incrustation of salt as did the former one, since the wind was accompanied and followed by such torrents of rain as effectually to dissolve and wash away any salt that fell during the height of the gale.

Instances illustrating the force and movements of the winds, sometimes occur in the country. The day of the hurricane which passed over Allegany county, large quantities of leaves, and even small twigs of trees, fell in the counties of Chemung and Tioga, which had been evidently carried high into the air by the whirlwind, and as that had become exhausted floated on with the upper currents, until they were suffered gradually to fall at the places noticed. The appearance of these leaves, &c., descending from the clouds or sky, was the first indication of the gale that had swept the country fifty miles to the west, as their fall was accompanied with neither wind or rain.

That such quantities of salt as the above relation prove are sometimes conveyed from the sea to the shore, may have a decided effect on vegetation, we can readily conceive, whether it remains undissolved on the plant, or is washed off into the soil. It has long been noticed that gypsum produces little or no beneficial effect in the vicinity of the sea; may it not be supposed that the salt thus conveyed to the land, and with which all severe storms from the sea must be more or less impregnated, renders this application useless or inoperative.

Price of Durham Cattle.

[FROM THE GENESEE FARMER.]

Many consider it a sufficient proof of false estimate of the value of Durham cattle, that the price is ten times greater than the animals would bring as beef in market, or than their proceeds would amount to in the dairy.

In deciding this point, it must be remembered that their value does not depend on their qualities for immediate use, but on their means of increasing the breed. Two things should therefore be considered in determining their price. 1. Their products for beef and the dairy; 2. The time required for them to increase so as to afford a general supply for the country.

1. To determine their value for *immediate* use, it is requisite that we know how much the proceeds exceed the cost and keeping. One cow may produce but one half more milk than another, and yet be ten times more profitable. If, for instance, the cost of keeping be fifteen dollars a year in both instances, and the produce of one be sixteen, and of the other twenty-four dollars, the clear profit of one is one dollar, and of the other, nine dollars. This shows the great importance of those animals which will produce the largest quantities of milk and butter. When it is considered that Durham cattle, for beef and the dairy taken together, are much superior to any other breed, their value for real use may in some degree be appreciated.

2. Suppose that their ultimate price will fall to only twice the present value of our common cattle, and that half a century will be

required for them to increase sufficiently to supply the whole country, a little calculation will show the safety of paying ten times that amount for them *now*, for the purpose of increasing their number. For when we remember the enormous increase from a single cow in that period of time, it will be evident that the present price of such an animal, though it be a thousand dollars, will bear an exceedingly small ratio to the ultimate value of her progeny.

This subject may perhaps be rendered clearer, by supposing an analogous case. Suppose that a variety of wheat may be obtained which will produce, with the same culture, five bushels more to the acre than our common wheat. Of course the farmer who sows a hundred acres, would gain by the use of such seed, from five hundred to a thousand dollars annually at the present price. In buying the seed, therefore, (two hundred bushels or less,) he could well afford to pay more than twice the common price of wheat. Consequently, in buying wheat for the exclusive purpose of growing for seed, he could pay twenty times the common price. Reasoning in this way, it will be seen that a single pint, for increasing as seed, would at first be cheap at a thousand dollars; and until the country were generally supplied, the price might safely be put at many times its ultimate value.

Analogous reasoning will show that the price of Durham cattle is not fictitious, but depends on their real value. J. J. T.

Agricultural Periodicals in the United States.

[FROM THE GENESEE FARMER.]

Twenty years since there was but a single periodical in this country devoted to the great interests of agriculture; and though much talent and ability was displayed by the conductor, it barely existed through some two or three of its first years. This paper was the *American Farmer*, published by J. S. Skinner, Esq. at Baltimore. In a country where ten-twelfths of the inhabitants were farmers,—a country that supported some five or six hundred political papers,—the propriety of a single agricultural journal, was by many considered problematical. The experiment succeeded, however, and the utility of the paper was so obvious, and its benefit to the community so great, that it was soon placed on a firm basis. After issuing some seventeen or eighteen years it was discontinued, or rather issued under a new name. After the *American Farmer* was established firmly, the *Plough Boy* was commenced at Albany, by S. Southwick, Esq., and was the means of diffusing much valuable information, and exciting inquiry and emulation among farmers. From some cause the *Plough Boy* did not receive the encouragement such a work required, and after a publication for a few years was finally discontinued. Another journal, well conducted, and rendering the cause of agriculture much service, was established in 1828, at New-York, by S. Fleet, Esq., which was discontinued only some two years since in consequence of the losses sustained by the publisher in the great fire at New-York in 1836. This journal was the *New-York Farmer*. We have mentioned these pioneer journals, not only because they were the first, or among the first in time in this country, but because they did much towards convincing agriculturists that the system of cultivating the soil in this country was miserably deficient, that great improvements might be made in the preparation of implements, in the management of manures, and in the general order of a farm; and none were so perfect in

the business as not to be capable of being instructed. They convinced many that agriculture was of itself one of the noblest of sciences, that knowledge was essential to its successful pursuits, and that no man was born a farmer any more than a lawyer, physician, or divine.

In giving a catalogue of existing agricultural periodicals in this country, we shall, so far as we are able, notice them according to the time they have been published, merely stating that the number we have before us, admonishes us that we must be brief in our estimate of their character and merit where, time has admitted of development in these respects.

The *New-England Farmer* is the oldest of our existing agricultural publications. It has reached its seventeenth volume; and bids fair we think to run a long career of usefulness. Mr. Fessenden was its former able conductor; on his death it came under the supervision of the talented Commissioner of Agriculture for Massachusetts, the Rev. Henry Colman, and the great advantage he enjoys in virtue of his office, are made subservient to the general diffusion of sound agricultural knowledge through the Farmer, as well as his annual reports. The N. E. Farmer is published in the quarto form, weekly, at \$2 50 per annum.

The *Southern Agriculturist* is the next on our list, the first number of the twelfth volume being now before us. It is published at Charlestown, S. C. editor B. R. Carroll, in monthly numbers of about fifty pages, at \$5 00 per annum. It is well conducted, but principally devoted to the culture of southern productions, as cotton, rice, sugar, &c., and affords many interesting examples of the amount and profits of slave labor, compared with that of the free cultivator of the soil.

Our own paper, the *Genesee Farmer*, is next. The Weekly Farmer has reached the ninth volume, and the monthly farmer the fourth. Both are in the quarto form, the first containing eight and the last sixteen pages each number. Weekly \$2 00, Monthly 50 cents per ann. Of its character and merits we shall be excused from speaking, any further than to say, that it is intended for circulation through our *whole country*; that we design it shall at least equal, in practical utility, any similar publication in the United States; and that a most rapidly increasing circulation convinces us that our exertions are not unappreciated by our farming brethren.

The *Farmers' Register*, published at Petersburg, Va., is a monthly periodical of 64 pages at \$5 00 per annum; editor, Edmund Ruffin. The Register stands deservedly in the front rank of American agricultural papers. The industry of the editor, his sound practical views, his acquaintance with the principles that govern vegetation, as developed in his valuable Essay on Lime as a manure, and his freedom of all cant and humbug, have united to give the Register a deservedly high character, which we trust it will long sustain. Such periodicals, while they contribute to the knowledge, elevate the profession of the farmer, and do much towards placing him in the commanding position to which the paramount utility of his avocation entitles him. The Register has reached its seventh volume.

The *Maine Farmer* is a valuable journal, published at Winthrop in Maine, by Mr. Holmes, weekly, quarto, at \$2 00 per annum. It has entered upon its seventh volume. In one respect the *Maine Farmer* differs from any agricultural paper with which we are acquainted. It has a legal department, devoted to the discussion of such questions as are apt to arise among farmers, and which may be exceedingly useful in preventing expensive lawsuits among neighbors.

The *Farmer and Gardener* of Baltimore, edited by E. P. Roberts, is the worthy successor of the *American Farmer*, which we have

mentioned as the earliest agricultural periodical in the United States. It is weekly, quarto, and furnished at \$2 50 per annum. No paper in the country has done more for the silk cause than the Farmer, and few understand the matter in all its bearings than the able editor of that journal. The Farmer has also taken a lively interest in the production of improved cattle and sheep, and in this way has rendered essential aid to the cause of agriculture.

The *Yankee Farmer*, Portland, Maine, weekly, quarto, S. W. Cole, editor, now in its fifth volume. \$2 a year.

The *Ohio Farmer*, S. Medary, editor, is the name of a quarto, semi-monthly journal, published at Columbus, Ohio, \$1 00 per annum. It has, like the preceding, reached the fifth volume. This journal has given many valuable original papers on subjects connected with farming and horticulture, and has evidently exerted a most favorable influence on the agriculture of the vicinity.

The *Magazine of Horticulture and Botany*, is a Boston monthly publication, edited by C. M. Hovey, of which the object is sufficiently indicated by the title. It is eminently useful to the florist and gardener, and contains engravings occasionally of rare and curious plants. The terms are \$3 00 per annum; forty pages in a number.

The *Albany Cultivator*, conducted by Jesse Buel, has just entered upon its fifth year, under flattering auspices. It is published monthly, 16 pages quarto, at \$1 00 per annum. The well known talent and industry of the editor, and his rare combination of scientific and practical knowledge in matters relating to agriculture, have given the Cultivator a high character and standing among agricultural periodicals. Its circulation is extensive.

The *Franklin Farmer*, published at Frankfort, Ky., by F. D. Pettit, weekly, quarto, at \$2 00 per annum, is one of the most spirited and ably conducted journals west of the Allegany mountains. In every thing relating to the improvement of cattle and swine, it is without a rival, and on the general topics of agriculture it has done much to introduce a more scientific and rational system into that State. It is now in its second volume.

The *Farmers' Cabinet* is published monthly at Philadelphia, by _____, in numbers of 32 pages octavo, at \$1 00 per annum. It is an excellent work, has an able corps of contributors, and a good circulation. A part of Pennsylvania furnishes some of the best specimens of farming in the United States; and the diffusion of such works as the Cabinet among an industrious population will have a tendency to greatly increase the number of such examples.

The *Indiana Farmer* is published weekly at Indianapolis, at \$2 50 per annum, quarto, by Osborn & Willets; and though not exclusively devoted to agriculture, has exerted a favorable influence on the farming community of that flourishing State.

The *Tennessee Farmer*, Jonesboro', 16 pages octavo, monthly, at \$1 00 per annum, J. F. Deaderick, editor. This is the first agricultural paper issued in Tennessee, and is now in its third volume.

The *Rural Repository* is a monthly reprint of agricultural works of standard merit, ("entire, compiled, abridged and original.") It is published at New-York, 40 large octavo pages monthly, by S. Fleet, former editor of the New-York Farmer. The talents of the editor, and the ample field before him for selection, gives the promise of an excellent work; and the numbers already before the public, (the second volume is entered upon) show that any reasonable expectations will not be disappointed.

The *Silk Culturist*, the first and a very valuable publication on that subject,—was published at Hartford, (Conn.) for three years—

and we believe it is still continued at Weathersfield, though we have not seen it for the last year.

The *Practical Farmer*, Mechanicsburg, (Pa.) a monthly quarto of eight pages, at \$1 a year.

American Turf Register and Sporting Magazine.—This Magazine has entered on its tenth volume, and has been transferred from Baltimore to New-York, and is now under the supervision of T. O. Porter, Esq. of the "Spirit of the Times;" monthly octavo \$5 a year.

None of the following publications have completed their first volume, and many of them have but just appeared. To express a definite opinion respecting such, would in most cases be a premature act; but some of them come forward under such auspices as to lead to high expectations from their circulation among the agricultural community.

The *Miamia Farmer*, quarto, semi-monthly, \$1 per annum, published by W. Appleton, Xenia, Ohio, No. 2, vol. 1.

Southern Cultivator, Columbia, (Tenn.) large quarto, semi-monthly, \$2 00 per annum, David Clayton, publisher. A respectable paper we think, and devoted to agriculture and the kindred sciences. Vol. 1. No. 7.

Western Farmer, Franklin, (Tenn.) monthly, quarto, (4 pages) F. Moore, editor, \$1 per annum. Vol. 1. No. 7

The *Cumberland Farmer*, Gallatin, (Tenn.,) monthly at \$1 a year. Vol. 1, No. 6. J. A. Browning & Co., publishers.

Farmers' Monthly Visiter, Concord, New-Hampshire, Hon. Isaac Hill, editor, quarto, 16 pages, well got up, and published at 75 cents per annum. This monthly paper we are led to believe is destined to take a high rank among agricultural periodicals; and we think it speaks well for the cause of the farmer, when men who have attained to some of the highest offices in the gift of the people, are willing to devote their talents and the information they must have acquired, to the diffusion of agricultural knowledge. Gov. Hill's Monthly Visitor, we predict, will be a welcome guest with thousands of our farmers.

Wisconsin Culturist, Milwaukee, Wiconsin Territory, semi-monthly, \$1 per annum. W. P. Proudfit, editor.

The *National Silk-Worm*, quarto, (4 pages) Philadelphia, price \$1. Thomas C. Clark, editor.

Cheshire Farmer, Keene, New-Hampshire, quarto, monthly, 50 cents annually, B. Cooke, editor. A good little paper and worthy of patronage.

Michigan Agriculturist, Detroit, H. H. Snelling, editor, quarto, weekly, price \$2 00 per annum. It is a valuable paper, and should receive an ample support from the farmers of that young but flourishing State.

The *Maine Cultivator*, 4 pages quarto, Hallowell, W. A. Drew, editor, \$1 a year. It is edited with much ability, and the only drawback with which we hail its appearance, arises from the circumstance that Maine already possesses two excellent agricultural papers, and we fear that there is not room for a third.

The *Farmers' Advocate*, Jamestown, North-Carolina, octavo, 16 pages, semi-monthly, \$1 25 per annum. John Sherwood, editor. Mr. Sherwood deserves credit for getting up an agricultural paper in that section of the United States, and the information his work diffuses will not be without its effect on the agriculture of the State.

Boston Cultivator, Boston; vol. 1. No. 15; weekly, folio, \$2 00 per annum, Wm. Buckminster, editor. This, we doubt not, will be a valuable paper, though we are unable to perceive the particular necessity for another agricultural paper in that city, where the ground

has been so long and ably occupied by the New-England Farmer. The numbers already issued evince agricultural skill, and a proper spirit of enterprise. There is a little leaning, however, to the belligerent, which should, we think, be eschewed, as out of place in such a journal.

The *American Silk Grower*, octavo, (16 pages) Burlington, N. J., Cheney & Brothers, editors, monthly, \$1. This is one of the best publications devoted to the silk culture in the United States; embracing a great variety of practical articles, the result of experience in this country. It is got up also in very good style, and must be useful to all who are entering upon the culture of silk.

Journal of the American Silk Society, Baltimore, monthly, 40 pages octavo, \$2 per annum, J. S. Skinner, editor. This is a work of authority, published under the direction and patronage of the American Silk Society, and well edited, if the three numbers issued may serve as a specimen. There can be no doubt that the silk culture must succeed in this country, but whether societies will advance it more effectually than individual enterprise, remains to be seen. Such publications cannot, however, be otherwise than useful, as directing labor into proper channels, and thus preventing mistakes and disappointment in the outset.

We have thus briefly noticed our agricultural periodicals, and if we have omitted any, will endeavor to give them a place another time. The list amounts to thirty-two, and nearly one half of the whole are still in their first year. There are probably 1,500,000 families in the United States that are devoted to agriculture, and that each of these should take a paper designed to support their interests cannot well be denied. There would seem then to be room for as many or even more papers, such as we have noticed, than are now issued, but that even all these can succeed, is to say the least problematical. It may be doubted whether all the above papers circulate more than 100,000 copies, and of these three-fourths of the whole are issued by some five or six of the journals. A paper devoted to agriculture, to the arts or sciences, or even to literature, occupies very different ground from a political journal; and it by no means follows that, because every county supports one or two of the latter, that the same will be done by the former. To render the first what they should be requires the combined labors and observations of a large circle of individuals; men of scientific resources, and men of practical skill; acquainted with the modes of agricultural or mechanical manipulation, as well as the theories on which their business is based, and their labors and efforts directed to produce a common result. To multiply journals of any kind beyond the means of adequate remuneration, is to lessen the incentives to emulation and excellence; and we cannot but think that if in some cases of newly established journals, the material furnished them, had been poured into some of the already existing channels of communication with the farming community, it would have been well for both. While we cordially welcome every new laborer to the agricultural field, we feel bound to state that in order to make an agricultural journal useful, difficulties and labors of which the uninitiated are incompetent to judge, will in all probability be encountered, before the success, which we trust is in store for them, will be effectually secured.

PART III.**MISCELLANEOUS INTELLIGENCE.**

Rail Roads.—We perceive that the Boston and Providence Rail Road Company have declared a semi-annual dividend of four per cent., and that the travel on the road has not been interrupted, for a single day, during the past year. This is an interesting commentary on the profit of rail roads, and their utility in the winter season. Until the experiment was fairly tried, it was supposed that, in Northern latitudes, rail roads would be useless in the winter. The early adovation of travel would last, on an average, about six or eight weeks, from snoews and frosts. The result of several years, proves conclusively, that there is no interruption at all, from these causes.—*Boston Gazette.*

Dangers of Rail-road Travelling.—A recent British publication contains a tabular view of the number of passengers conveyed over the rail-roads of Great-Britain, the number of miles they travelled, and the number of accidents that have occurred since they were all in operation. We have summed these tables, and find that nearly *forty-five millions* of persons have travelled by the rail-roads over *thirty millions* of miles, (in the aggregate) and that only *twenty* deaths and *fourteen* contusions or fractures have occurred! This is almost incredible, but such is the fact, if figures do not lie, or we are not deceived by typographical errors, neither of which we believe, is *the case in this case.*

Land Sales.—The sales at Milwaukie, (Wisconsin,) from the 19th of February to the 16th of March, when the sales terminated, amounted to \$567,339 47. The Chicago American states that nine-tenths of this is sold to actual settlers, and, with the exception of half a section, at the minimum price of \$1 25 per acre.

A new mode of furnishing masts to steam vessels, by which they may be set up or taken down, when required, in less than two hours, has lately been invented in France, a description of which was read to the Academy des Sciences. The improvement consists in making the masts of numbers of sheet spars, capable of being so well joined as to equal the solidity of ordinary masts.

The Bush Cow.—A remarkable curious animal has just arrived in this country from Sierra Leone, which is attracting a good deal of attention among naturalists. It resembles in form a common cow, but is thinly covered with coarse hair of a dirty yellow color, with tufts of the same hanging down at equal distances over her broad pendulous ears, and has altogether a most singular appearance. It comes from the interior of Western Africa, and is but little known even to the natives, who call it the Bush Cow. No other specimen has ever been brought to Europe, nor the colonists of Sierra Leone at all acquainted with it, and it is believed to be quite undescribed. It has been depositnd for the present at the Surrey Zoological Gardens.—*London Farm. Mag.*

Days of the Week.—The Sun, Moon, Tuisco, Woden, Thor, Friga, and Seater were Saxon gods, to each of which one day in the week was consecrated—Sun's day, Moon's day, Tuisco's day, Woden's day, Thor's day, Friga's day, Seater's day. Hence the names Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday.

Truth.—In all sciences the errors precede the truths; and it is better they should go first than last.

Rip Van Winkle waking up.—Thirty-four thousand dollars have been subscribed towards establishing a cotton factory at Salisbury, N. C.; only \$6000 more are wanting to start the enterprize.

Origin of the term "Muslin."—The city of Mosul, formerly the capital of Mesopotamia, stands upon the right of the western bank of the Tigris, opposite to the side of ancient Ninevah. "All those cloths of gold, which we, the Venetians," says Marco Polo, call muslins, are of the manufacture of Mosul. It is not improbable that the city of Mosul, being at that time one of the greatest entrepôts of Eastern commerce, may have given the appellation to various productions of the loom conveyed thence to the Mediterranean.

A Prize for the Ladies.—The Iowa News says, the bachelors of Du Bugue will give a premium of a husband to the Miss who first makes her appearance in that place dressed in silk of her own manufacture.

Family Conversation.—Sensible, judicious conversation in the family circle, exercises an important and salutary influence in forming the minds, and regulating the opinions of children and young people, and should be resorted to as the most efficient means of regulating their future movements in life.—*Far. Cabinet.*

Indian Food.—I have been to the Indian wigwam, and asked the old chief why his race, who were once the pride of the forest, and died of nought but old age and the battle axe, had now dwindled to a handful of poor sickly basket makers. He has told me of the white man's axe, and said these fields were once covered with forests that sheltered the bear, the deer, and the buffalo. He pointed to his patch of maize, whose cultivation required the sordid mind of the pale faces. "Give me back my forest and my bow, and my children shall no more die of a cough."

A citizen of Dorchester, (——) and not the wealthiest in the town either, has paid to a baker in that place the sum of \$1852, 15, within the last five years for bread, which has been regularly distributed to the poor and infirm in the neighborhood.

The navigable canals in England exceed 2000 miles in length. In Ireland, both the navigable canals and rivers do not exceed 400 miles in length.

It is supposed that the census of 1840 will show a population in the U. States of between 17,000,000 and 18,000,000. In 1830, it was 12,866,020.

Cure for Frozen Limbs.—Dissolve from a quarter to half a pound of alum in a gallon of warm water, immerse the feet or hands in it when frozen, for ten or fifteen minutes, and a cure will be effected. A gentleman informs us that having frozen his feet, he tried the above remedy with complete success.

An Excellent Law.—In Turkey, whenever a store keeper is convicted of telling a lie, his mouth is painted black, and is to remain so for one month.

The following is the title of a poem, published in England about 1685, "Tobacco Battered and Pipes Shattered (about their ears that idly idolize so base and barbarous a weed,) or at least overlove so loathsome a vanity; by a volley of hot shot thundered from Mount Helicon."

The Legislature of Kentucky have given favor to a proposition to enact that *habitual drunkenness* be a sufficient ground for a divorce. There are few better reasons in our judgment.

Rather wink at small injuries, than be too forward to avenge them—he that to destroy a single bee should throw down the hive, would have a thousand enemies instead of one.

There are three times as many papers published on Sunday in London, as there are on any other day of the week.

LIST OF PAYMENTS SINCE OUR LAST.

SOUTH-CAROLINA.

Charleston.—J. C. Ker, 1839; W. L. Hughes, 1839; Wm. E. Simons, 1837.
Pineville.—S. P. Gaillard, 1839.
Walterboro'—W. H. Fishburne, 1838.
Milton P. O.—Col. B. F. Griffin, 1839.
Beaufort.—James Fripp, 1839; William Hopp, 1839.
Orangeburg.—Alfred Appleby, 1839.
Wimberley—James R. Stickman, 1839.
Sumterville.—Dr. Thomas M. Dick, 1838, '39.
Columbia.—R. C. Dubose, 1838, '39.
Edisto.—O. H. Middleton, 1839.

GEORGIA.

From Agent at Augusta.

Mrs. Barnes, 1838; Jonathan Meigs, 1838, '39; G. Lawrence, 1838; William J. Eve, 1838, '39.

LAB.

Montgomery.—Maj. Green, 1838.
Perry C. H.—Col. Deveaux, 1838.

Hemp.—James Cage, 1839.

BROAD-BINDING.

The Subscriber will be pleased to have BINDING neatly done, if left at W. E. MILLER, No. 4, Broad-st.

E. MILLER.

WANTED.—Published 50 cents for the January number of the
Southern Agriculturist, 1832. Also for the September number, 1832, and
March number, 1833.

May 1839.

The Slaveholding Large.

THE FIRST AND SECOND VOLUMES of the *STATISTICS AT LARGE*
OF SOUTH-CAROLINA, 1830, under the authority of the Legislature,
by THOMAS COOPER, M. A. D. Price \$3 for both.
Also, the THIRD and FOURTH VOLUMES, each Price \$3.
For sale by A. E. MILLER.

Grey Sulphur Springs of Virginia

THESE SPRINGS are situated on the borders of Giles and Monroe counties, Va., nine miles from the Red Sulphur, and twenty from the Salt Sulphur Springs. There are two Fountains at this establishment, both highly beneficial in gastric affections, not differing essentially in their action. Both are strongly impregnated with alkalies, (of which Bi-Carbonate of Soda is the principal), impregnated Hydrogen, &c., and have been classed by Chemists, as Alkaline.

The Old or *True* *Dyspeptin* acts usually as a diuretic and as a mild laxative sufficiently so to remove constipation where it is not constitutional. When the biliary secretions have become vivified, or there are other offensive matters present it acts as a gentle cathartic, but ceases thus to act as soon as these are removed. Its influence appears to be primarily exerted on the stomach, and from thence extended to other organs. By its *alkaline* properties, it neutralizes acidity arising from undigested food, and prevents its further formation, and reduces the irritation and inflammation engendered by it. While its other ingredients (or rather the combination of the whole) impart a tonic influence to the digestive organs, enabling them better to perform their functions.

The same influence is happily exerted in cases of *Chroatic Diarrhea*. The morbid action is not checked suddenly, but gradually. The irritation and inflammation of the mucous membrane of the stomach and bowels being removed, and a more healthy action established.

It is, however, in *obstructing the action of the heart*, that the writer appears to possess the most powerful influence. In some cases the arterial action is rapidly reduced—in others, this is more slowly accomplished. Cases are on record in which the pulse has been reduced from 100 to 60 beats pr. minute, and from 115 to 84—in twenty-four hours. There are many others of a similar nature, in which the pulse was gradually reduced, in four days, from 120 to 70 beats pr. minute.